

## COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 2023

U.S. SENATE,  
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,  
*Washington, DC.*

[CLERK'S NOTE.—The subcommittee was unable to hold hearings on departmental and nondepartmental witnesses. The statements and letters of those submitting written testimony are as follows:]

### DEPARTMENTAL WITNESSES

#### PREPARED STATEMENT OF AMERICAN PHYSIOLOGICAL SOCIETY

The American Physiological Society (APS) thanks you for your sustained support of science at the NSF and NASA. In this statement we offer our recommendations for FY 2023 funding levels for these two agencies.

- The APS urges you to fund the FY 2023 NSF budget at a level of at least \$11 billion to prevent further erosion of program capacity and allow researchers to take advantage of scientific opportunities.
- The APS urges you to restore cuts to NASA's life sciences research budgets and to increase funding for the Human Research Program.

NSF and NASA support scientific research and technology development programs essential to the future technological excellence and economic stability of the United States. Federal investment in this research is critically important because breakthroughs in basic and translational research provide the foundation for new technologies to fuel our economy and make it possible for the United States to remain a global leader in science, technology and engineering. According to the 2022 Science and Engineering Indicators, other countries including China continue to increase basic research funding at a rate that outpaces the growth of U.S. investments.<sup>1</sup>

#### NSF FUNDS OUTSTANDING RESEARCH AND EDUCATION PROGRAMS

NSF provides support for 24% of all federally funded basic scientific research, including 65% of the support for non-medical research in biology. NSF invests in basic biological research across a broad spectrum of sub-disciplines along with the equipment and other infrastructure scientists need for their work. Time and time again we have seen that knowledge gained through basic biological research provides a foundation for more applied studies that sustain the health of animals, humans and ecosystems. Moreover, NSF-funded research has led to countless new and unexpected discoveries that could not have been envisioned when the research began. These unforeseen applications have had enormous impacts on science, health and the world's economy.

94% of the NSF budget directly funds research and education. Most of this funding is awarded through highly competitive grants, which support over 300,000 researchers across all 50 States.<sup>2</sup> The NSF is the only Federal agency that supports basic research across all disciplines of science and engineering, and its continued funding is critical for the development of the next generation of scientists. NSF has an exemplary record of funding research with far-reaching potential. Since its incep-

<sup>1</sup> <https://ncses.nsf.gov/pubs/nsb20221/executive-summary>.

<sup>2</sup> [https://www.nsf.gov/news/factsheets/Factsheet\\_By%20the%20Numbers\\_05\\_21\\_V02.pdf](https://www.nsf.gov/news/factsheets/Factsheet_By%20the%20Numbers_05_21_V02.pdf).

tion in 1950, NSF has supported the work of 248 Nobel Laureates, including the 2020 Nobel Prize in Chemistry for the development of CRISPR gene editing technology. Although there are many promising applications of CRISPR technology, such as rapid diagnosis of diseases like COVID-19, its discovery started as curiosity-driven basic science.

Biological research is just one part of the NSF portfolio. The APS believes that each of the NSF directorates support research that is critical to NSF's mission "to promote the progress of science; to advance the National health, prosperity, and welfare; and to secure the National defense." Collaboration among scientific disciplines is increasingly recognized as the best and most efficient way to advance science. This will only be possible with strong support for all disciplines of research.

In addition to funding innovative research in labs around the country, NSF education programs foster the next generation of scientists. The APS is proud to have partnered with NSF in programs to provide training opportunities and career development activities to enhance the participation of underrepresented minorities in science. We believe that NSF is uniquely suited to foster science education programs of the highest quality, and we recommend that Congress continues to provide Federal funds for science education through the NSF.

The APS joins the Federation of American Societies for Experimental Biology (FASEB) in recommending that the NSF be funded at a level of at least \$11 billion in FY 2023. The NSF budget has been flat in real terms for approximately the last 15 years. When former NSF Director Dr. France Cordova testified before the House Appropriations subcommittee on Commerce, Justice and Science on March 26, 2019, she stated that each year the NSF receives approximately \$4 billion worth of well-rated proposals that the agency is unable to fund within its current budget. Providing the agency with a significant budget increase would allow the NSF to support approximately 2,000 additional research grants. The NSF is poised to address major challenges facing our Nation and our world in the 21st Century, but it needs adequate resources to continue to carry out its mission.

#### SUPPORT FOR LIFE SCIENCES RESEARCH SHOULD BE INCREASED AT NASA

NASA sponsors research across a broad range of the basic and applied life sciences, including gravitational biology, biomedical research and the Human Research Program (HRP). The gravitational biology and biomedical research programs explore fundamental scientific questions through research carried out both on Earth and aboard the International Space Station, which provides an environment for the conduct of experiments in space. NASA's HRP conducts focused research and develops countermeasures with the goal of enabling safe and productive human space exploration. The program funds more than 300 research grants that go to academic researchers in more than 30 States around the country.

During prolonged space flight, the physiological changes that occur due to weightlessness, increased exposure to radiation, confined living quarters, and alterations in eating and sleeping patterns can lead to debilitating conditions and reduced ability to perform tasks. Scientists are actively engaged in research that explores the physiological basis of these problems with the goal of contributing to the identification of therapeutic targets and development of novel countermeasures. One of the most well-known studies of these physiological changes is the NASA Twin Study which compared identical twins and fellow astronauts Mark and Scott Kelly to document changes that occurred following Scott Kelly's 1 year mission aboard the International Space Station.<sup>3</sup> The knowledge gained from this research is not only relevant to humans traveling in space, but is also directly applicable to human health on Earth. For example, some of the muscle and bone changes observed in astronauts after prolonged space flight are similar to those seen in patients confined to bed rest during periods of critical illness as well as during the process of aging.

NASA is the only agency whose mission addresses the biomedical challenges of human space exploration. Over the past several years, the amount of money available for conducting this kind of research at NASA has dwindled. In the past, appropriations legislation specified funding levels for biomedical research and gravitational biology, but ongoing internal reorganizations at NASA have made it difficult to understand how much money is being spent on these programs from year to year. The APS recommends that funding streams for these important fundamental research programs be clearly identified and tracked within the NASA budget. The APS also recommends restoration of cuts to peer-reviewed life sciences research to allow NASA-funded scientists to conduct research that will be critical not only for supporting the success of future long-range manned space exploration but also in

<sup>3</sup> <https://www.nasa.gov/feature/nasa-twins-study-confirms-preliminary-findings>.

leading to innovative discoveries that can be applied to Earth-based medicine. As highlighted above, investment in the basic sciences is vital to our Nation's technological and economic future. This innovative engine of research fuels our world leadership and our economy. The APS urges you to make every effort to provide these agencies with increased funding for FY 2023.

Physiology is a broad area of scientific inquiry that focuses on how molecules, cells, tissues and organs function in health and disease. The American Physiological Society connects a global, multidisciplinary community of more than 10,000 biomedical scientists and educators as part of its mission to advance scientific discovery, understand life and improve health. The Society drives collaboration and spotlights scientific discoveries through its 16 scholarly journals and programming that support researchers and educators in their work.

---

#### PREPARED STATEMENT OF DEPARTMENT OF JUSTICE

Members of the Senate Committee on Appropriations—Subcommittee on Commerce, Justice, Science, and Related Agencies, my name is Abigail Echo-Hawk, and I am an enrolled citizen of the Pawnee Nation of Oklahoma, currently living in an urban Indian community in Seattle, Washington. I am Executive Vice President of the Seattle Indian Health Board (SIHB) and the Director of Urban Indian Health Institute (UIHI) where I oversee policy, research, data, and evaluation initiatives. To uphold the legislative mandate of the Not Invisible Act and Savanna's Act required by the Department of Justice and Department of Interior, I would like to request an oversight hearing on this issue. The Not Invisible Act and Savanna's Act are critical for addressing the Missing and Murdered Indigenous Women and People (MMIWP) crisis. Each day these go unfulfilled our Tribes, communities, and individuals affected by MMIWP go unserved.

I am an American Indian health researcher with more than 20 years of experience in both academic and non-profit settings. I participate in numerous local, State, and Federal efforts to support AI/AN communities in research, including serving on the Tribal Collaborations Workgroup for the National Institutes of Health (NIH) All of Us precision medicine initiative. I am also a recent member of the NIH Office of AIDs Research Advisory Council as the only Native representative. I am a co-author to four groundbreaking research studies on sexual violence and Missing and Murdered Indigenous Women and Girls (MMIWG) where I have called national attention to the institutional barriers in data collection, reporting, and analysis of demographic data that perpetuate violence against AI/AN people. I am a member of the National Academies of Sciences, Engineering, and Medicine (NASEM) Standing Committee for the Centers for Disease Control and Prevention (CDC) Center for Preparedness and Response (SCPR). Additionally, I serve on Washington State Office of the Attorney General's task force for Missing and Murdered Indigenous Women and People.

#### BRINGING NATIONAL ATTENTION TO THE MMIWP CRISIS

In 2018, UIHI released a groundbreaking report titled, Missing and Murdered Indigenous Women and Girls Report.<sup>1</sup> Through the first publication and multiple reports released since then, UIHI continues to identify gaps in local to Federal data collection methods on AI/AN people, gaps in gender-based violence care continuation, and lack of Federal funding available to meet the unique and prompting needs of Indigenous communities.

Since the release of our initial report, UIHI continues to document the existing resiliency and cultural strengths that combat the MMIWP crisis. In 2022, UIHI released Supporting the Sacred: Womxn of Resilience<sup>2</sup> which gathered the voices of AI/AN survivors and recommended increased and flexible funding for housing stability, legal representation, behavioral health, and investing in community services to reduce survivors' unmet needs. The report also found the relationship between law enforcement, providers, and survivors could be improved through culturally responsive training and authentic relationship-building. Finally, the report concludes by stressing gender-based violence services and programming be led by Native experts and communities to ensure utmost care of our people.

---

<sup>1</sup>Urban India Health Institute. (November 2018) Missing and Murdered Indigenous Women and Girls Report. Retrieved from: <https://www.uihi.org/projects/our-bodies-our-stories/>.

<sup>2</sup>Urban Indian Health Institute. (May 2021) Supporting the Sacred: Womxn of Resilience. Retrieved from: <https://www.uihi.org/resources/supporting-the-sacred-womxn-of-resilience/>.

In 2022, we also released *Service as Ceremony: A Journey toward Healing*,<sup>3</sup> which identified the intersectional impacts COVID-19 had on AI/AN experiencing intimate partner violence from the perspective of direct service providers. Recommendations to mitigate intimate partner violence includes training medical providers to work with AI/AN communities, support increased funding for community-based programming and services, and promote cross-system coordination amongst responders, Tribes, law enforcement, and community organizations.

Our reports continuously demand improved data collection on AI/AN populations, cross-system coordination, and increased investments to our community-based organizations serving AI/AN survivors, victims, families, and community members affected by violence.

#### EQUITY DETERMINATION BY THE GAO AND DEPARTMENT OF JUSTICE (DOJ) EQUITY PLAN

In 2021, the Government Accountability Office (GAO) released *Missing or Murdered Indigenous Women: New Efforts Are Underway but Opportunities Exist to Improve the Federal Response*<sup>4</sup> documenting the Department of Interior (DOI) and the Department of Justice's (DOJ) Federal implementation failures to implement the Not Invisible Act and Savanna's Act of 2019. The GAO report recommended DOJ and DOI fulfill their legislative mandates by: developing a plan accomplish ongoing analyses of data in existing Federal databases; developing a strategy to educate the public on entering data into NamUs; developing a plan to conduct outreach to Tribes, Tribal organizations, and urban Indian organizations (UIO) to enter data into NamUs, and; and encouraging the Secretary of the Interior to appoint members to the Not Invisible Commission. The lack of Federal implementation of these legislative mandates perpetuates the cycle of violence against Indigenous bodies when Indian Country continues to demand action, accountability, and justice for our loved ones.

In alignment with Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government and the DOJ—Equity Action Plan, we request the DOJ engage with underserved communities more effectively to increase reporting of crimes; ensure appropriate consideration of the needs of victims, and; improve the dissemination of resources, programs, and services. These efforts will honor the government-to-government relationship with Tribal communities and strengthen agency communication with front line responders to the MMIWP crisis.

#### IMPROVING DOJ'S APPROACHES AND RESPONSE TO VIOLENCE

Due to unique legal jurisdictional precedent on Tribal lands, Indian Country relies on the efforts of DOJ to assist violent crimes on and off Tribal lands. We request Congress oversee the implementation of Savanna's Act by the DOJ and ensure their equity plans do not go dismissed.

A continuous issue that affects both Tribal regions and urban areas, is the lack of multidisciplinary and multijurisdictional coordination for MMIWP. Tribal, Federal, State, and local jurisdictions often offer disjointed responses that leave crime victims and families without appropriate intervention resources and no way to hold officials accountable. Similar to DOJ creating an MMIP website available for anyone, DOJ must support improved communication amongst Tribes, State and local law enforcement, and community members through a nationwide data system to document missing and endangered Indigenous people. Additionally, DOJ can improve coordination between law enforcement and providers to assure victims, survivors, and families have access to programs, services, and activities that offer culturally responsive wraparound services in the local area.

In Washington state, a historical missing and endangered Indigenous persons advisory alert was created which will notify law enforcement, Tribal areas, and the public. Similar to an Amber Alert, Washington state patrol will respond to the call, and maintain the clearinghouse associated with the call line for individuals impacted by MMIWP. These State-based solutions can begin to bridge the jurisdictional gaps associated with MMIWP, and create a unified approach for Tribal, Federal, State, and local responses.

<sup>3</sup>Urban Indian Health Institute. (February 2022) *Service as Ceremony: A Journey toward Healing*. Retrieved from: <https://www.uihi.org/resources/service-as-ceremony-a-journey-toward-healing/>.

<sup>4</sup>U.S. Government Accountability Office. (October 2021) *Missing or Murdered Indigenous Women: New Efforts Are Underway but Opportunities Exist to Improve the Federal Response*. Retrieved from: <https://www.gao.gov/products/gao-22-104045>.

In 2021, UIHI released *A Step Toward Justice*,<sup>5</sup> a case study documenting our efforts within the 13th largest county in the Nation, King County, to improve the accuracy of data collected on AI/AN populations. To address the misrepresentation and undercount of missing and murdered crimes against AI/AN people, UIHI led the creation of data fields for law enforcement to utilize and provided data collection techniques to improve accurate reporting on race/ethnicity, AI/AN identity, and Tribal affiliation. These efforts support law enforcement's improved data collection reporting from interactions with AI/AN people to better document AI/AN people affected by violence. We have created a national model that DOJ can use to support national efforts to identify AI/AN crime victims more accurately and correctly by engaging with Tribes, community leaders, and Tribal epidemiology centers.

#### ADDRESSING THE INCREASE OF INTIMATE PARTNER VIOLENCE THROUGH FLEXIBLE FUNDING

We are appreciative of the gender-based violence funding being made available to UIOs through the reauthorization of Violence Against Women's Act (VAWA). COVID supplements illuminated the various ways in which wraparound service providers can mediate authentic responses for Native survivors during times of a pandemic. During Tribal consultations held with the DOJ, Indian Country continuously asks for investments in our grassroots, community-based organizations, and Tribal organizations providing low-barrier direct service to both urban and rural AI/AN people. Our Native providers continue to offer unmatched services that must receive renewable, and flexible funding to respond to institutional inequities that perpetuate violence against Indigenous bodies.

COVID-19 exacerbated social determinants of health in AI/AN communities including income, housing, health, and safety. During the stay-at-home orders, AI/AN women experienced an increase in intimate partner violence,<sup>6</sup> exposing them to additional traumas and placing them at greater risk of becoming unhoused. Many survivors of violence turned to cultural services to escape unsafe conditions. Through flexible spending, our Native providers were able to offer centralized services to address social determinants of health that can often lead to increased risks of intimate partner violence. During the pandemic, cultural healing spaces were created by providers and grew to support survivors' access to behavioral health, medical services, continuing education, and employment opportunities. However, additional, and long-term funding is needed to support health access, legal services, educational opportunities, and on the ground support to care for survivors' and victims' holistic needs.

A multi-pronged systemic approach to MMIWP will require implementation of Savanna's Act and Not Invisible Act, multi-jurisdictional coordination, improved data collection on AI/AN populations, and increased investment to community-based organizations responding to the crisis. These efforts will center those most impacted by MMIWP and address systemic issues plaguing Indian Country.

[This statement was submitted by Abigail Echo-Hawk]

#### PREPARED STATEMENT OF U.S. DEPARTMENT OF COMMERCE (DOC) AND THE U.S. DEPARTMENT OF JUSTICE (DOJ)

##### U.S. DEPARTMENT OF COMMERCE

##### *North Atlantic Right Whales \$26 million*

In 2020, North Atlantic right whales were designated as critically endangered by the International Union for Conservation of Nature (IUCN). Elevated mortalities of the species from entanglements in fishing gear and vessel strikes have been declared an Unusual Mortality Event (UME) by the National Oceanic and Atmospheric Administration (NOAA) since 2017. The annual documented rate of anthropogenic mortality and serious injury, due to both entanglement in gear and vessel strikes, has exceeded the population's potential biological removal level (PBR) since 1995.

In October 2021, scientists from the New England Aquarium released a new population estimate for North Atlantic right whales, indicating that the population num-

<sup>5</sup>Urban Indian Health Institute. (October 2021) *A Step Toward Justice* Examining the collaboration between Urban Indian Health Institute and the King County Prosecuting Attorney's Office and the lessons learned from their partnerships. Retrieved from: <https://www.uihi.org/projects/protecting-the-sacred/>.

<sup>6</sup>Urban Indian Health Institute. (February 2022) *Service as Ceremony: A Journey toward Healing*. Retrieved from: <https://www.uihi.org/resources/service-as-ceremony-a-journey-toward-healing/>.

bered only 336 as of January 2020, the lowest assessment in decades.<sup>1</sup> Right whales are extremely vulnerable to being caught in the vertical buoy lines used in lobster and crab trapping gear. Entanglement can lead to drowning, reduced mobility, and, in some cases, a long, painful death from starvation. Collisions with vessels of all sizes can also cause serious injuries, such as blunt force trauma, propeller cuts, and broken bones. Three North Atlantic right whale calves were killed or seriously injured by vessel strikes in U.S. waters in the last year. In February 2021, an adult whale was confirmed dead due to injuries from entanglement. Two other entangled whales were added to the serious injuries list in 2021.

Studies have shown that mortalities from known entanglements have continued to increase from 21 percent (1970–2002) to 51 percent (2003–2018).<sup>2</sup> Entanglements caused as many as 85 percent of diagnosable deaths from 2010 to 2015. In February 2021, a study co-authored by leading North Atlantic right whale scientists found that from 1990–2017, observed carcasses only accounted for 36 percent of North Atlantic right whale mortalities.<sup>3</sup> These “cryptic mortalities,” i.e., deaths caused by human activities without an observed carcass, represent a larger proportion of the total mortality than previously believed.

The FY22 appropriations omnibus included \$21 million for North Atlantic right whales within the Marine Mammals, Sea Turtles, and Other Species line item. Within this funding, \$2 million was directed to NOAA for the continuation of a pilot program developing and field-testing new fishing gear technologies designed to reduce entanglements, and \$14 million was provided to States through the Atlantic States Marine Fisheries Commission (ASMFC) to help defray the cost to the fishing industry of compliance with the final 2021 rule to modify the Atlantic Large Whale Take Reduction Plan (ALWTRP) (FR–210827–0171). We are immensely grateful for the subcommittee’s concern for this species and the substantial increase in funding but remain deeply concerned with the effectiveness of the 2021 rule, in that it falls significantly short of the risk reduction needed to save this species from extinction.

Within our proposal of \$26 million, we believe funding should be appropriated to NOAA to develop and implement new rules aimed at reducing the mortality rate of North Atlantic right whales by vessel strikes, fishing-gear entanglements, and other threats. There must also be investment in reducing vessel-strike risk in high-traffic areas as well as a transition to whale-safe fishing gear. We believe the pilot program to refine and field test innovative fishing gear technologies, such as ropeless gear, should be expanded, including the development of geolocation technologies, and recommend \$8 million be appropriated towards this. Lastly, surveys and monitoring, enforcement, disentanglement, stranding response, and plankton recorder surveys are crucial to the conservation of this species.

We encourage Congress to direct investment to the development of ropeless technologies instead of expensive, short-term investments in “weak rope.” The use of 1,700-lb breaking strength lines (known as “weak rope”) may decrease the severity of entanglement injuries suffered by right whales but does not reduce the likelihood of entanglement in the first place nor the sub-lethal impacts of entanglement on whales. This gear also does not reduce the risk of serious injury or mortality for right whales who are less than 2 years old.<sup>4</sup>

If we are to save this species, it will require the investment and cooperation among Congress, agencies, scientists, and industry to find long-term solutions. We appreciate the subcommittee’s recognition of the urgency of this situation and the funding it continues to provide for the protection of North Atlantic right whales.

#### *Unusual Mortality Event Contingency Fund     \$4.5 million*

Marine mammals are important indicator species of ocean health. Monitoring the health of marine mammals, especially during an Unusual Mortality Event (UME), can reveal emerging threats, potential impacts of human activities, and the effectiveness of management actions. A UME is defined as “a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response.” There are currently six active UMEs—Alaska ice seals, West Coast gray whales, Atlantic minke whales, North Atlantic right whales, Atlantic humpback whales, and Atlantic Florida manatees. In the newest UME to be de-

<sup>1</sup> Heather Pettis, Richard Pace III, Philip Hamilton, North Atlantic Right Whale Consortium 2021 Annual Report Card Report to the North Atlantic Right Whale Consortium (2022) available at [https://www.narwc.org/uploads/1/1/6/6/116623219/2021report\\_cardfinal.pdf](https://www.narwc.org/uploads/1/1/6/6/116623219/2021report_cardfinal.pdf).

<sup>2</sup> Sharp, S, et.al (2019). Gross and histopathologic diagnoses from North Atlantic right whale *Eubalaena glacialis* mortalities between 2003 and 2018. *Diseases of Aquatic Organisms*, 135(1), 1–31. doi:10.3354/dao03376).

<sup>3</sup> Pace, R. et al. (2021). Cryptic mortality of North Atlantic right whales. *Conservation Science and Practice*. 3. 10.1111/csp2.346.

<sup>4</sup> Knowlton et al. (2016).

clared, the 2021 Atlantic Florida manatee, over 1,000 manatees have died. Rescue organizations are hampered by the lack of facilities and funds for responding to overwhelming numbers of live manatees in need of rescue and rehabilitation.

Since 1991, 71 marine mammal UMEs have been declared. The UME Contingency Fund was established through the Marine Mammal Protection Act to enable the National Marine Fisheries Service to reimburse marine mammal stranding network partners for costs related to: caring for and treating live animals that strand as part of UMEs; collecting, preparing, and sending biological samples to the National Marine Mammal Tissue Bank and other diagnostic laboratories to investigate the causes of UMEs; and collecting important marine mammal health data to inform and improve future UME responses and marine conservation. Although Congress created this fund in 1992, it appropriated funds only in 2005; all other contributions to the Fund have been through voluntary contributions. Given the growing number of UMEs, \$4.5 million should be allocated to the Unusual Mortality Event Contingency Fund to enable robust marine mammal stranding response efforts.

*John H. Prescott Marine Mammal Rescue Assistance Grant Program*     \$8 million

The John H. Prescott Marine Mammal Rescue Assistance Grant Program (Prescott Grant Program), a program under NMFS, provides competitive grants to marine mammal stranding network organizations to do the following: (1) rescue and rehabilitate sick, injured, or distressed live marine mammals, and (2) investigate the events surrounding, and determine the cause of, the death or injury of marine mammals. Over the past 21 years, the Prescott Grant Program has been vital to protecting and recovering marine mammals across the country while also generating critical information regarding marine mammals and their environment. As the sole source of Federal funding for the National Marine Mammal Stranding Network, which is comprised of over 90 member organizations in 26 States, the District of Columbia, two territories, and two Tribes, robust funding is required for the Prescott Grant Program to enable it to continue its vital work.

*Enforcement and Seafood Import Monitoring Program (SIMP)*     \$4 million

The Seafood Import Monitoring Program (SIMP) was established in 2016 to require U.S. importers of certain fish and fish products to provide and report key data, with the aim of uncovering illegal, unreported, and unregulated (IUU) fishing and/or seafood fraud and preventing it from entering U.S. commerce. The program oversees imports of 13 species groups (which are comprised of more than 1,100 unique species) including sharks and sea cucumbers, two marine species that are increasingly threatened by IUU fishing. The 2019 addition of shrimp has had implications for the critically endangered vaquita, of which only about 10 remain. The use of illegal gillnets for catching shrimp in the Gulf of California, and the subsequent by-catch of vaquitas, has been a major factor in the species' decline.

A 2021 report "Seafood Obtained via Illegal, Unreported, and Unregulated Fishing: U.S. Imports and Economic Impact on U.S. Commercial Fisheries," compiled by the U.S. International Trade Commission, found that \$2.4 billion worth of seafood imports derived from IUU fishing was imported in 2019 (11 percent of total seafood imports). Over 13 percent of the U.S. imports caught at sea were estimated to be caught using IUU fishing practices. Top species included swimming crab, wild-caught warmwater shrimp, yellowfin tuna, and squid. The report noted that IUU-sourced seafood is a threat to the livelihood of U.S. fishermen. These practices also pose risks to marine ecosystems, public health, and human rights.

In January 2020, the U.S. government allocated \$8 million to fight IUU fishing and bolster SIMP as part of the US-Mexico-Canada trade agreement (USMCA) that was approved in January 2021. As part of the agreement, funding will go to NOAA to help it cooperate with the Mexican government in fighting illegal fishing through 2023. Additional funding of \$4 million is necessary to ensure full enforcement of SIMP in FY23.

*Marine Mammal Commission (MMC)*     \$6 million

The Marine Mammal Commission (MMC) is an independent Federal agency established by Congress in 1972 under the Marine Mammal Protection Act (MMPA). It is responsible for overseeing the proper implementation of the MMPA and provides comprehensive, independent, science-based oversight of all Federal and international policy and management actions affecting marine mammals. The MMC's work is crucial to maintaining healthy populations of marine mammals, including whales, manatees, dolphins, seals, sea otters, walrus, and polar bears, and ensuring their survival for generations to come. Additionally, the MMC seeks to ensure that Alaska Natives can meet their subsistence needs through hunting of marine mammals.

Each U.S. taxpayer contributes just over 1 cent per year to fund the MMC and its work. Until FY21, the MMC had been flat funded at \$3.43 million. In FY21, funding for the MMC was slightly increased to \$3.769 million, and was then further increased to \$4.2 million in FY22. Due to rising fixed costs, the MMC has absorbed significant essential costs (salaries, rent, etc.) and thereby reduced its discretionary funding. In order for the MMC to fully fulfill its obligations, we ask that \$6 million be appropriated for FY23.

U.S. DEPARTMENT OF JUSTICE

*Environment and Natural Resources Division/Environmental Crimes Section*

*Additional \$2 million*

AWI asks the subcommittee to provide an additional \$2 million, over and above the amount that would otherwise be appropriated, to the Environmental Crimes Section of the Department of Justice's Environment and Natural Resources Division, to be designated for the Section's work on animal cruelty crime.

Congress has taken significant steps in the last decade to strengthen Federal laws to protect animals from cruel treatment. For those efforts to be meaningful, it is imperative that the Federal Government's enforcement efforts be robustly supported. The attorneys in the Environmental Crimes Section are tasked with ensuring that justice is served when the Federal statutes and enforcement regimes that provide for the humane treatment of captive, farmed, and companion animals across the country are violated. These laws include the Animal Welfare Act, the Horse Protection Act, the Humane Methods of Slaughter Act, the 28-Hour Law, the animal crush video statute, the Animal Fighting Venture Prohibition Act, and, since 2019, the Preventing Animal Cruelty and Torture Act.

This is a tremendous amount of responsibility, and it is a responsibility that both Congress and the American public expect to be executed vigorously. The resources available to bring criminal prosecution under these laws has not kept pace with the improvements made in the laws. Given the increased workload the Section has taken on in just the last couple of years, a \$2 million increase in its funding its work on animal cruelty crimes is warranted.

[This statement was submitted by Nancy Blaney, Director, Government Affairs]

PREPARED STATEMENT OF THE WILDLIFE CONSERVATION SOCIETY

The Wildlife Conservation Society (WCS) would like to thank Chair Shaheen, Ranking Member Moran, and the members of the subcommittee for providing this opportunity to submit testimony in support of funding in the FY22 Commerce, Justice, Science and Related Agencies Appropriations Act for the National Oceanic and Atmospheric Administration's (NOAA) National Marine Sanctuaries Program, the National Marine Fisheries Service Office of Protected Resources funding for the critically endangered North Atlantic right whale and for the National Marine Fisheries Service (NMFS) Fisheries Data Collections, Surveys, and Assessments funding line specifically to enhance data collection and stock assessment of vulnerable shark, skate and ray species.

WCS was founded with the help of Theodore Roosevelt in 1895 with the mission of saving wildlife and wild places worldwide. Today, WCS manages the largest network of urban wildlife parks in the United States. Visited by 4 million people annually, the network includes our flagship, the Bronx Zoo, as well as the New York Aquarium in Brooklyn. Globally, our goal is to conserve the world's most important wild places, focusing on 14 priority regions that are home to more than 50% of the world's biodiversity. We have offices and field programs in more than 60 countries and with our partners manage more than 200 million acres of protected areas around the world, employing more than 4,000 staff including about 200 Ph.D. scientists and 100 veterinarians. Working in all the world's oceans, WCS combines its expertise in the field, aquarium and zoos to achieve its conservation mission both in New York and around the world. In our view, the largest threats facing marine wildlife and habitats require innovative, science-based solutions that balance conservation and sustainable use of the ocean.

The future of our ocean and coastal resources—and our National well-being—depends on a strong NOAA. For these reasons, we support robust investment in the Federal Government's premier ocean science, conservation and management agency. We ask that the subcommittee Members use this additional investment in NOAA in the FY23 Commerce, Justice, Science and Related Agencies appropriations bill to increase investments in the National Marine Sanctuaries Program, North Atlantic right whale conservation and fisheries data collections, surveys and assessments to



improve fisheries management and conservation measures for vulnerable shark, skate and ray species.

—*NOAA—National Marine Sanctuaries Program—\$87 Million:* The National Marine Sanctuary System is our essential network of protected waters held in trust for all Americans. Marine sanctuaries and monuments are home to millions of species, preserve our Nation's maritime heritage, and promote access for exploration and world-class outdoor recreation. The conservation and sustainable use of marine ecosystems and biodiversity are vital to maintaining a healthy ocean and Great Lakes, addressing the climate crisis, and underpinning productive coastal economies.

The United States is an ocean nation containing 3.4 million square nautical miles of ocean—larger than the combined land area of all fifty States. The National Marine Sanctuary Program serves as trustee for 15 ecologically and culturally significant ocean and Great Lakes sites. The system works with diverse partners and stakeholders to promote responsible, sustainable ocean uses that ensure the health of our most valued ocean places. A healthy ocean is the basis for thriving recreation, tourism and commercial activities that drive coastal economies. The Office of National Marine Sanctuaries also leads the National Marine Protected Areas Center, the Nation's hub for building innovative partnerships and tools to protect our special ocean.

WCS strongly supports the Biden-Harris Administration's commitment to 30x30 goals—conserving at least 30% of the world's lands and oceans by 2030 (30x30). US implementation of 30x30 provides a critical foundation for global success on biodiversity conservation, mitigating and adapting to climate change through natural climate solutions, and preventing zoonotic spillover that causes pandemics, such as COVID-19. It provides an opportunity for improved inter-agency coordination, as well as alignment, and synergy among existing and new laws, regulations, and mechanisms to enhance habitat protection. 30x30 can also provide a pathway to reconciliation of the issues of equity and justice that underlie conservation in this country by increasing access to nature, especially for under-resourced communities, and honoring and elevating the role of Indigenous Nations in any 30x30 strategy.

Although there are places that merit all protections that U.S. law can provide, working lands and busy waters also play a critical role in meeting the Nation's 30x30 goals. As such, the National Marine Sanctuaries Program which balances conservation and sustainable use must be an integral part of the U.S. response. The program needs additional resources to support existing Sanctuaries as well as to initiate the public-facing, stakeholder-driven process to designate new Sanctuaries in areas that NOAA has determined are worthy of protection. Currently, there is no Sanctuary in the biodiverse and culturally important waters of the New York Bight. Therefore, WCS nominated Hudson Canyon as a National Marine Sanctuary in 2016. Located just 100 miles from the Statue of Liberty, NOAA determined it is a site of ecological and economic importance and placed the nomination in its inventory of successful nominations. WCS's nomination recommended a Hudson Sanctuary designation would supplement and complement existing regulations by ensuring that oil, gas and mineral exploration and extraction be permanently precluded from a Hudson Sanctuary and that the existing authorities (e.g. Mid-Atlantic Fishery Management Council, the Atlantic States Marine Fisheries Commission and NOAA's Highly Migratory Species Division) continue to regulate fisheries within the Sanctuary, should it be designated. With increased resources from Congress, WCS looks forward to NOAA initiating the public-facing, stakeholder-driven designation process for Hudson Canyon.

For these reasons, WCS supports the Biden-Harris Administration's recommended investment of \$87m for the FY23 Sanctuaries and Marine Protected Areas ORF as detailed in the President's Budget Request and Congressional Justification.

—*NOAA—Office of Protected Species, funding for North Atlantic Right Whale conservation within Marine Mammals, Sea Turtles, and Others Species, \$26 Million:* NOAA's Office of Protected Species is responsible for the conservation, protection and recovery of more than 150 Endangered and Threatened marine species under the Endangered Species Act, including the North Atlantic right whale. The Office is also responsible for the management and protection of all whales, dolphins, porpoises, seals, and sea lions under the Marine Mammal Protection Act.

Recently updated estimates for North Atlantic right whale indicate that between January 2019 and January 2020 its population plummeted an additional eight% to 336 individuals, entailing a rate of decline forty times the legal limit. This is the lowest assessment in decades. We are facing an emergency situation: This species cannot recover without a significant reduction to the high level of mortality they are currently experiencing, including from ship strikes in high-trafficked areas, noise

pollution, and other impacts from fisheries and offshore wind energy development, including New York and New Jersey waters. Scientists from the Wildlife Conservation Society, in collaboration with the Woods Hole Oceanographic Institution and other partners, are monitoring right whales and other marine mammals as they migrate through the busy waters of the New York Bight. Twelve million dollars out of \$26 million is needed to increase investments in research, monitoring and management related to vessel strikes, ocean noise and fishing gear entanglements by NOAA. With this funding, managers, stakeholders and the public will be able to contribute to the conservation of the critically endangered North Atlantic right whale.

—NOAA—*National Marine Fisheries Service (NMFS) Fisheries Data Collections, Surveys, and Assessments funding line for vulnerable shark, skate and ray species, \$10 Million:* Insufficient fisheries data and stock assessment of shark, skate and ray populations prevents scientists from determining whether species are overfished and/or subject to overfishing. Many sharks are important predators in ocean food chains, which makes them critical in maintaining the balance of marine ecosystems. Most shark and ray species are long-lived, mature late, and produce few offspring. These life history characteristics make sharks extremely vulnerable to overfishing, whether from targeted fishing or bycatch. In a recent paper, experts estimated that 37.5% of shark and ray species are threatened with extinction, according to International Union for Conservation of Nature (IUCN) Red List criteria. Overfishing is the main threat for 100% of threatened species and the sole threat affecting 67 % of these species. Based on data from NMFS 2020 Report to Congress on the status of U.S. shark fisheries, there are 34 shark stock or stock complexes listed in U.S. waters of which 68% are either overfished and experiencing overfishing , have a mixed status , or have an “unknown” overfished or overfishing stock status . By directing \$10 million specifically allocated towards stock assessments for vulnerable shark, skate and ray species, Congress can help ensure the improved management and conservation of this important group of species.

WCS appreciates the opportunity to share its perspective and to make a case for increases in Federal investments in ocean conservation in the FY23 Commerce, Justice, Science and Related Agencies Appropriations Act. As an ocean nation, Americans depend on Federal investment in NOAA programs that are rooted in marine science and stakeholder engagement. These investments will help us balance marine conservation and sustainable use of the ocean.

Thank you for the opportunity to provide details on these WCS requests to the Commerce, Justice, Science and Related Agencies Appropriations subcommittee in preparation for the FY23 Appropriations Act. WCS marine science and policy experts are available to the subcommittee should there be any follow up questions.

[This statement was submitted by Noah Chesnin, Associate Director, New York Seascape Program]

---

## NONDEPARTMENTAL WITNESSES

### PREPARED STATEMENT OF THE ALLIANCE TO END SLAVERY AND TRAFFICKING

Honorable Matt Cartwright, Chair, Honorable Robert Aderholt, Ranking Member, House Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies, Honorable Jeanne Shaheen, Chair, Honorable Jerry Moran, Ranking Member, Senate Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies:

The Alliance to End Slavery and Trafficking (ATEST) appreciates and thanks you for your leadership in the fight to end child labor, forced labor and human trafficking. We are grateful for the increased support these programs have received over the past decade. We seek your assistance again in funding essential programs in the FY23 Commerce, Justice, Science and Related Agencies bill. The Justice Department plays a vital role in bringing traffickers to justice. These cases are often complicated and involve lengthy legal proceedings requiring additional resources for prosecutors as well as for victims who often experience severe trauma requiring intensive therapy and long-term services and support to rebuild their lives. Most victims require comprehensive case management, legal services and access to housing supported by trauma-informed and culturally competent victim services and community-based organizations to support their goals and help them navigate the often re-traumatizing court process.

We are grateful for your support to increase investments in these areas, and to continue to ensure that the Department of Justice works to strengthen collaborative community responses to human trafficking.

ATEST FY23 Appropriations Request Summary: CJS					
Department	Program		FY22 Enacted	Authorized Funding	FY23 Appropriation Request
Justice	Office of Justice Programs / State And Local Law Enforcement Assistance Victim Services Grants and Human Trafficking Task Forces		\$88,000,000	\$98,000,000	\$150,000,000
		Office of Justice Programs / State And Local Law Enforcement		\$8,000,000	\$10,000,000 (included within the \$150 million request)

<b>Justice</b>	Assistance Minor Victim Services Grants			
	Legal Activities/ Civil Rights Division: Human Trafficking Prosecution Unit	\$5,300,000	n/a	\$8,000,000
	National Institute of Justice / Prevalence Methodology & Study			\$10,000,000
	Federal Bureau of Investigation			Report Language (see below)
	U.S. Attorney's Offices			Report Language (see below)

## DEPARTMENT OF JUSTICE

*Office of Justice Programs/State and Local Law Enforcement Assistance Victim Services Grants and Human Trafficking Task Forces: \$150,000,000*—According to the 2021 Trafficking in Persons (TIP) Report, Department of Justice (DOJ) grantees served 9,854 clients during the most recent 1-year period (7/1/19 to 6/30/20), approximately 17.6 percent more clients than DOJ grantees served the prior year (8,375). The National Human Trafficking Hotline identified 18,600 sex trafficking and forced labor victims in 2020, and reported a 60 percent increase in signal volume since 2019. Given that survivors of trafficking are coming forward in greater numbers than are being served by DOJ grantees, robust resources are needed to ensure that they receive appropriate responses and services. Data from the Trafficking Hotline and anecdotal evidence from established service providers demonstrate that insufficient resources and hindered access to resources remain a significant barrier for survivors. For example, service providers in New York City, including an ATEST member, reported a significant increase in survivors' requests for rental assistance, medical cost coverage and food vouchers. While some of these requests were met, service providers engaged in ongoing advocacy with landlords and medical providers to negotiate rent arrears arrangements or lower medical bills when funding was insufficient to cover these costs. In 2020 and 2021, Trafficking Hotline data shows that more than 50 percent of all crisis calls were requests for emergency shelter assistance.

The COVID-19 crisis has drastically changed the landscape for serving human trafficking victims and survivors. Service providers nationwide have reported a greater caseload and more difficulties providing services due to complicated and evolving COVID-19 mitigation measures. Data from one service provider showed a

556 percent increase in emergency response cases of escaping survivors since the start of the pandemic in 2019. Furthermore, this service provider has experienced a 455 percent increase in costs for basic necessities. As economic vulnerabilities continue to increase throughout the duration of the pandemic and economic recovery remains inconsistent, we expect an ongoing increase in required services for victims and survivors. Despite the amplified need for comprehensive services, we anticipate a possible 35 percent decrease in funding for service providers in the anti-trafficking movement as part of the economic fallout from this global health crisis. We are seeing significantly heightened client financial needs in all areas, including social and legal needs, and expect a significant increase in the need for sustained comprehensive services.

To attempt to meet the growing needs of victims and survivors, we request \$150,000,000 for human trafficking survivors and law enforcement. Given the increased vulnerability to trafficking due to persistent unemployment and general financial, legal and social instability, we request that no less than \$126,000,000 of the appropriation be for victim services, and that the majority of OVC money continues to be spent supporting direct services for all forms of trafficking in persons, including intensive case management and legal and shelter services. We also request that OVC review monies granted to law enforcement task forces to ensure task forces are adopting victim-centered approaches. Two of ATEST's direct service provider members, who also run federally funded task forces under the Enhanced Collaborative Model grants, report that many of their clients have experienced negative or harmful interactions with law enforcement. Clients report being coerced to testify against their traffickers under threat of prosecution themselves. Other clients who have reported strong labor trafficking cases have not been granted Continued Presence and law enforcement has declined to investigate these allegations. Other survivors were required to interview with law enforcement up to six separate times at the height of the pandemic, and were still not issued Continued Presence until their victim service provider advocates intervened on their behalf. One BIPOC client shared she was turned away by the police when seeking help. "I was searching for help and when I went to the police department they looked at me like I was crazy. They told me no one would want to house me or help me if I kept telling people I was running away from a pimp. They gave me a cold shoulder, a pamphlet to go across the street, and shooed me away." Essentially, when survivors of human trafficking seek help from law enforcement, the majority of survivors report being turned away, or arrested.

With respect to implementation of the Trafficking Victims Protection Act (TVPA) related to protection of victim rights, section 5 of Public Law 115-392 (one of the four bills in the most recent TVPA reauthorization), the Secretary of the Department of Homeland Security was to issue a directive regarding victim protection training and victim screening protocols. These protocols have still not been developed. ATEST is deeply invested in the development of victim-centered protocols by DOJ and DHS, in strong collaboration with DOL and HHS, for publication and dissemination to the extensive network of DOJ-funded task forces around the country.

Finally, we want to acknowledge, gratefully, that colleagues within the Department of Justice have steadfastly responded to our appropriations requests over the past decade and we have seen large increases in funding disbursed by Department of Justice for victims of human trafficking. The COVID-19 global pandemic is unlike anything we have seen before in recent times, and victims of human trafficking are disproportionately impacted. Therefore, we continue to request significantly elevated levels of funding and hope to continue the ongoing trend of increased appropriations.

*Proposed Report Language:* The bill provides \$150,000,000 for the Victims of Trafficking Grant program, of which no less than \$126,000,000 is for victim services. The \$10,000,000 request for minor victim services grants is included within the \$150,000,000 appropriations request for victim services overall.

*Office of Justice Programs/State and Local Law Enforcement Assistance Minor Victim Services Grants: \$10,000,000*—Specialized, comprehensive, trauma-informed and gender-specific assistance to minor victims of human trafficking is critical. Minors face significant hurdles recovering from the abuse and trauma they have endured. Law enforcement has identified the lack of specialized housing programs throughout the U.S. as the greatest obstacle in effectively prosecuting child traffickers. The Attorney General is authorized to provide grant funding to serve sex-trafficked minors. We request additional funds to support services, training and outreach for labor-trafficked youth. Including labor trafficked children is imperative given that the Federal definition of human trafficking includes both sex trafficking and forced labor. Furthermore, labor trafficking victims experience the same types of trauma, physical, sexual and psychological abuse seen in sex trafficking cases.

Unaccompanied minors working are at risk of and have experienced sex and/or labor trafficking, but often only receive support for their sex trafficking recovery. More than 50 percent of the Safe Horizon Anti-Trafficking Program clients are identified as labor trafficking victims. Another ATEST member noted that 28 percent of their survivors served were trafficked as minors. Increased funding to serve minor victims of all forms of human trafficking, including labor trafficking, would critically shore up prevention and protection efforts.

According to the National Advisory Committee on the Sex Trafficking of Youth in the United States, “a child or youth may more readily disclose concerns related to labor trafficking than concerns related to sex trafficking given the sexual violence, trauma, and stigma endemic in sex trafficking. Additionally, some disclosures that initially seem to involve only sex trafficking may also involve labor trafficking, as children and youth may be forced to work while also being made to engage in commercial sex acts.” We further request that the bill contain statutory language to make this funding available for 2 years instead of just 1 year.

*Proposed Report Language: The bill provides \$10,000,000 for Minor Victims of Trafficking Grant program, of which \$5,000,000 is for victim services grants for sex trafficked minors, and an additional \$5,000,000 for victim services grants for labor trafficked minors. The Committee encourages DOJ to work in close coordination with the Department of Health and Human Services to encourage collaboration and reduce duplication of effort.*

*Legal Activities/Civil Rights Division, Human Trafficking Prosecution Unit (HTPU): \$8,000,000*—HTPU houses the government’s top legal experts on prosecuting human trafficking cases. These cases are resource-intensive because they are procedurally complex and involve multiple jurisdictions and defendants. Per the Human Trafficking Institute’s Federal Human Trafficking Report, HTPU cases had a 89 percent conviction rate in 2020. Defendants in HTPU cases are consistently receiving longer sentences and more frequently ordered to pay restitution than non-HTPU cases. With increased funding, HTPU will be able to increase prosecutions of all forms of trafficking and forced labor. This funding should be prioritized for the prosecution of forced labor cases, which only constituted 6 percent of the active prosecutions in 2020, compared to 94 percent of active prosecutions for sex trafficking. From 2019 to 2020, new forced labor cases declined 11 percent, from 9 cases to 8 cases. The Human Trafficking Institute noted that prosecutors filed more sex trafficking prosecutions in 2020 than all forced labor prosecutions filed over more than 20 years after TVPA passage.

Additionally, the Abolish Human Trafficking Act (Public Law 115–392) designates an assistant U.S. Attorney in every U.S. Attorney’s Office across the United States to prosecute human trafficking cases. HTPU is responsible for supporting the training of these prosecutors.

*Proposed Report Language: The Committee provides \$8,000,000 for the Human Trafficking Prosecution Unit (HTPU) and encourages HTPU and the Anti-Trafficking Coordination Teams to continue working with victim service providers and non-governmental organizations to ensure victim needs are prioritized as part of the overall strategy to combat human trafficking and particularly forced labor in the United States. Additional resources provided are to implement section 15 of Public Law 115–392. Furthermore, the Committee directs the Human Trafficking Prosecution Unit (HTPU) to report to the Committees on Appropriations no later than 120 days following enactment of this act on (1) the total number of human trafficking cases it prosecuted or assisted in prosecuting within the last 3 years disaggregated by type of trafficking, (2) the number of Assistant U.S. Attorneys who received training on human trafficking within the past 3 years, and, (3) the number of Assistant U.S. Attorneys who received training on restitution for human trafficking victims within the past 3 years.*

*National Institute of Justice/Prevalence Methodology & Study: \$10,000,000.*—DOJ missed the deadline of December 21, 2019 to update Congress on its efforts to conduct the evaluation research and develop a methodology to assess the prevalence of human trafficking in the United States as mandated by Sec. 401(a) of the Trafficking Victims Protection Act of 2017 (Public Law 115–393). In the past, no funding has been allocated to a prevalence study in the United States. Funding provided will allow NIJ to finally develop a methodology and conduct a prevalence study on the nature of trafficking in the United States, or more accurately, a series of prevalence studies focused on specific geographies, economic sectors, and forms of trafficking. This research is essential to inform future appropriations decisions for counter-trafficking in persons programs. The development and implementation of the methodology is estimated to cost \$10,000,000 total. Such sums necessary to complete the evaluation research and development should be appropriated for FY23.

The lack of coordinated efforts across the country to collect reliable data about trafficking means funds are appropriated and programs established without dependable information regarding the prevalence of specific types of trafficking, the locations in which trafficking occurs, and the effectiveness of specific anti-trafficking measures. A concerted effort to collect reliable, accurate, relevant, and impartial data is necessary to establish more effective counter-trafficking in persons programs and to more appropriately target Federal funding. The study will need to include information from Federal and State law enforcement alongside direct service providers in order to present a comprehensive landscape of human trafficking in the United States. Conducting pilot studies that target specific high-prevalence regions, economic sectors, and population groups is a crucial step in developing a comprehensive and accurate prevalence methodology study; moreover, limiting the covered populations (as opposed to a national prevalence estimate) will allow the work to be conducted on a shorter timeline. The United States already invests a significant amount of resources in measuring human trafficking prevalence abroad, and it is past time to make the same level of investment in measuring prevalence domestically, if we are to continue as a leader in the global anti-trafficking field.

*Proposed Report Language: The Committee directs the Secretary to report on efforts made by the National Institute of Justice to develop a methodology to assess the prevalence of human trafficking in the United States as mandated by Sec. 401(a) of the Trafficking Victims Protection Act of 2017 (Public Law 115–393). The Secretary should include in this report an estimate of the necessary funds to complete the evaluation research and development of the methodology in fiscal year 2023 and fiscal year 2024.*

*Federal Bureau of Investigation: Report Language.*—The FBI is a critical Federal law enforcement agency partner fighting human trafficking. The presence of the FBI in any trafficking investigation significantly increases the chances of success. Furthermore, with trafficking investigations often crossing state lines, the presence of the FBI becomes critical.

*Proposed Report Language: The Committee recognizes the complex nature of human trafficking investigations and encourages the Director to allocate additional resources for human trafficking cases and designate a lead agent in each field office as a point of contact for human trafficking investigations.*

*Legal Activities / United States Attorneys: Report Language*

1) Consistent with the reauthorization of the Trafficking Victim Protection Act's requirement that each U.S. Attorney's Office (USAO) designate an Assistant U.S. Attorney (AUSA) as a lead human trafficking prosecutor, we request that the subcommittee include report language encouraging the prompt implementation and that the Executive Office of U.S. Attorneys provide sufficient support and training and technical assistance to the designated AUSAs to enable each respective jurisdiction to improve coordination and communication.

*Proposed Report Language: The Committee directs the Executive Office of U.S. Attorneys, in consultation with the United States Attorneys, to provide sufficient support and training and technical assistance to each Assistant U.S. Attorney designated as the lead human trafficking prosecutor, consistent with the Trafficking Victims Protection Act.*

2) We request that the Executive Office of U.S. Attorneys, in consultation with the Department of Homeland Security, develop a process to enable survivors with T-visas to obtain an expedited letter of support from the Department of Justice when their criminal case is closed.

*Proposed Report Language: Designating a point of contact will improve communication and coordination within each jurisdiction, including victim service organizations, in order to better serve the victims of human trafficking and forced labor. The Committee directs the Executive Office of U.S. Attorneys, in consultation with the Department of Homeland Security, to develop a process to enable survivors with T-visas to obtain an expedited letter of support from the Department of Justice when their criminal case is closed, including a report on sufficient staffing to ensure that requests for letters can be processed in less than 3 months.*

As a champion for the victims of child labor, forced labor and sex trafficking, you understand the complexities of these issues and the resources needed to respond. We have carefully vetted our requests to focus on the most important and effective programs. We thank you for your consideration of these requests and your continued leadership. If you have any questions, please contact ATEST Director Terry FitzPatrick (terry.fitzpatrick@atest-us.org).

Sincerely,

Coalition to Abolish Slavery and Trafficking (CAST)  
Coalition of Immokalee Workers (CIW)

Covenant House Free the Slaves HEAL Trafficking  
 Human Trafficking Institute Human Trafficking Legal Center Humanity United  
 Action  
 McCain Institute for International Leadership  
 National Network for Youth (NN4Y) Polaris  
 Safe Horizon Solidarity Center  
 Truth: The Rabbinic Call for Human Rights United Way Worldwide  
 Verité  
 Vital Voices Global Partnership  
 ATEST is a U.S.-based coalition that advocates for solutions to prevent and end  
 all forms of human trafficking and modern slavery around the world.

---

PREPARED STATEMENT OF AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

Chair Shaheen, Ranking Member Moran, and Members of the subcommittee:

Thank you for the opportunity to submit written testimony on behalf of the American Educational Research Association (AERA). I want to begin by recognizing your longstanding support for the National Science Foundation (NSF) and thank you and your staff for your strong commitment to maintaining agency flexibility in funding cutting edge science. AERA recommends that the NSF receive at least \$11 billion in fiscal year 2023. This recommendation is consistent with that of the Coalition for National Science Funding (CNSF), in which AERA is a long-term active member. AERA also recommends \$2 billion for the Census Bureau, consistent with the recommendation of The Census Project.

AERA is the major national scientific association of 25,000 faculty, researchers, graduate students, and other distinguished professionals dedicated to advancing knowledge about education, encouraging scholarly inquiry related to education, and promoting the use of research to serve public good. Many of our members are engaged STEM education research. Our members work in a range of settings from universities and other academic institutions to research institutes, Federal and State agencies, school systems, testing companies, and nonprofit organizations engaged in conducting research in all areas of education and learning from early childhood through the workforce.

Given the scientific expertise of the AERA membership and in our field, my testimony focuses on the importance of the current Education and Human Resources Directorate (referenced hereafter under its proposed new name in the fiscal Year 2023 budget request, STEM Education [EDU]) and the Social, Behavioral and Economic (SBE) Sciences Directorates at NSF. In addition, many of our members depend on an accurate Census count and data from the American Community Survey to do their work.

NATIONAL SCIENCE FOUNDATION

The Federal investment in research and scientific knowledge at NSF has led to innovation and discoveries that are applied in our daily lives. We appreciate the bipartisan interest in maintaining U.S. leadership and global partnerships in basic research through the Federal investments made in NSF.

The EDU and SBE Directorates are central to the mission of the NSF to advance fundamental knowledge and scientific breakthroughs and to ensure significant continuing advances across science, engineering, and education. EDU support is vital to research discoveries, capacity building, and methodological innovations directly related to STEM education and learning from early education through workforce development. Research and science supported by the EDU and SBE Directorates are also inextricably linked to the science and research of the other directorates (for example, Computer and Information Science and Engineering). We also see promise in the new Technology, Innovation, and Partnerships (TIP) Directorate, and encourage NSF to pursue education research as a priority in this directorate.

Furthermore, the EDU and SBE directorates are vital not just to producing essential knowledge but also to harnessing that knowledge to enhance productivity, innovation, safety, security, and social and economic well-being. I also wish to highlight the National Science Board Vision 2030, which calls for expanding the STEM talent pool. Ongoing NSF initiatives to broaden participation through programs such as NSF INCLUDES in EDU and the Build and Broaden program within SBE are examples to increase the diversity of the STEM educator and research workforce.

As indicated in the agency's budget request for fiscal Year 2022, 96 percent of appropriated funds directly supported research and STEM education through grants and cooperative agreements in fiscal Year 2021, with 78 percent of funding supporting research at colleges and universities. In addition, NSF estimates that more



than 132,000 K–12 students and 46,000 K–12 teachers will benefit from programs that directly engage them in STEM experiences within and outside the classroom in fiscal Year 2023.

#### *STEM Education Directorate*

The EDU Directorate at NSF is responsible for providing the research foundation necessary to achieve excellence in U.S. STEM education. EDU accomplishes this goal by supporting the development of a scientifically-literate citizenry as well as a STEM-skilled workforce. Advances in the industries of the future, including artificial intelligence and quantum information science, require building interest and engagement in STEM throughout the lifespan.

The EDU Directorate commitment to invest in fundamental research related to STEM across all education levels and to promote evidence-based innovations in teaching practices, instructional tools, and programs is essential to advancing STEM education and preparing the next generation of STEM professionals. EDU funded researchers are asking key questions, for example, about how to spark students' interest in math and science and keep them engaged, or about why so many students lose interest and confidence and about what can be done to keep them engaged. Understanding these and many other questions will help the United States build a well-educated and technology-literate workforce necessary for a prosperous economic future.

Key to advancing STEM education research is the Education Core Research (ECR) program, an important resource to the field that builds fundamental knowledge and capacity to understand STEM teaching and learning and develop the STEM educator and workforce pipeline. ECR grants have supported critical work in equity, inclusion, and ethics in postsecondary academic workplaces and the academic profession, as well as research to improve STEM teaching and learning for students with disabilities. We also applaud NSF in investing in midscale research infrastructure, serving as a potential resource for addressing key needs that include building data infrastructure capacity and developing innovative diagnostic assessment tools.

As the Nation continues to recover from the effects of the COVID–19 pandemic, research supported by EDU will be critical to fostering STEM learning in formal and informal settings. Through the RAPID program, EDU provided grants to education researchers to inform remote instruction, develop STEM curriculum that incorporated the COVID–19 pandemic to understand scientific principles, and provide insight into issues of equity in STEM education. Additional survey work and research supported through RAPID funding highlighted how the pandemic affected undergraduate and graduate students, including their engagement and interest in STEM and their satisfaction with online STEM coursework.

Increased investment in EDU is critical to support research to inform an educational system that will continue to incorporate technology inside and outside the STEM classroom and in labs. In addition, the EDU Directorate's focus on developing our Nation's scientific workforce requires resources to ensure that early career scholars and graduate students remain in the STEM talent pipeline. Some examples include material support to emerging scholars (both salary and "soft support"), mechanisms to connect and build communities among scholars, and focus on mentoring.

#### *Social, Behavioral and Economic Sciences Directorate*

In addition to the significant investments in education sciences provided by EHR, AERA values the important role the SBE Directorate in funding important education research and in social, family, and peer contexts connected to learning. The SBE Directorate also houses the National Center for Science and Engineering Statistics (NCSES).

The SBE Directorate supports research to better understand people and reveals basic aspects of human behavior in the context of education and learning. SBE funded research adds fundamental knowledge essential to promoting the Nation's economy, security, and global leadership. Understanding social organizations and how social, economic, and cultural forces influence the lives of students is important to improving teaching and learning and advancing STEM education.

The budget for SBE is 4 percent of the budget for Research and Related Activities, yet it provides approximately 65 percent of the Federal funding for basic research in the social and psychological sciences at academic institutions.

#### *National Center for Science and Engineering Statistics (NCSES)*

In addition, AERA has a strong interest in the National Center for Science and Engineering Statistics (NCSES) located in the SBE Directorate. As one of the Federal principal statistical agencies, NCSES provides invaluable statistical information about the science and engineering infrastructure and workforce in the U.S. and

around the world. NCSES collects and analyzes data on the progress of STEM education and the research and development, providing valuable information on the trajectories of STEM graduates both in STEM and non-STEM careers.

Additional resources in funding and staffing in FY 2023 for NCSES would support critical activities to develop new data techniques building on administrative data and to enhance data tools and visualizations to facilitate access to statistical resources. These methodological advances will be necessary for NCSES to implement the Foundations for Evidence-based Policymaking Act and to build the NSF data infrastructure to securely link its survey data with administrative data in other Federal agencies.

NCSES will also play a pivotal role in supporting the overall NSF priority to bring the “Missing Millions” from traditionally underrepresented populations into the STEM pipeline. Expanding NCSES surveys and incorporating information on inclusion-including data on the participations of LGBTQ+ populations, persons with diverse (dis)abilities, and other demographic attributes-can help NSF, other science agencies and institutions, and fields of science understand disparities in STEM and inform broadening participation initiatives.

#### CENSUS BUREAU

I also wish to emphasize the importance of adequate support for the Census Bureau, especially critical in the tabulation of data from the 2020 Decennial Census, planning for the 2030 Decennial Census, and in maintaining important survey collections. AERA recommends funding the Census Bureau at \$2 billion in FY 2023.

The requested amount of \$2 billion for fiscal Year 2023 will provide the agency with needed resources to conduct the Economic Census, process and finalize the enumeration and related activities for the 2020 Census, which experienced delays due to the COVID-19 pandemic. In addition, this amount of funding will provide resources for planning for the 2030 Decennial Census and continue the administration of the Household Pulse Survey, which has provided valuable, real-time data to inform the COVID-19 response. The recommended funding support will also allow the Census Bureau to incorporate innovations in the American Community Survey and the Current Population Survey.

Thank you for the opportunity to submit written testimony in support of at least \$11 billion for the National Science Foundation and \$2 billion for the Census Bureau in fiscal year 2023 appropriations. AERA would welcome the opportunity to work with you and your subcommittee to best further the crucial advances of the National Science Foundation and the important data provided by the Census Bureau. Please do not hesitate to contact me if AERA can provide additional information regarding this recommendation or the significant science made possible through the support of these agencies.

[This statement was submitted by Felice J. Levine, PhD, Executive Director]

---

#### PREPARED STATEMENT OF THE AMERICAN GEOPHYSICAL UNION

The American Geophysical Union (AGU), a non-profit, non-partisan scientific society, appreciates the opportunity to submit testimony regarding the fiscal year 2023 appropriations request for the National Aeronautics and Space Administration (NASA), the National Oceanic and Atmospheric Administration (NOAA), and the National Science Foundation (NSF). AGU, on behalf of its community of 130,000 in the Earth and space sciences, respectfully requests that the 117th Congress appropriate the following:

- \$9 billion for NASA’s Science Mission Directorate (SMD),
- \$154 million for NASA’s Office of STEM Engagement,
- \$7.2 billion for NOAA, and
- \$11 billion for NSF.

#### NATIONAL AERONAUTICS & SPACE ADMINISTRATION

AGU requests that Congress appropriate \$9 billion in FY23 for NASA’s Science Mission Directorate (a 18.2% increase over FY22 levels) and \$154 million for NASA’s Office of STEM Engagement (a 12.4% increase over FY22 levels). This request will allow NASA to remain on track to steadily advance existing and new decadal missions, provide unique opportunities for the next generation of STEM professionals, and ensure that the U.S. maintains its global leadership in the Earth and space sciences.

#### *Earth Science Division*

A strong investment in this division will support a robust climate and applications research program, including new and existing Earth Systems Observatory missions, the launch of three Earth System Explorers missions within a decade, and partnership opportunities to ensure sustained climate observations. Additionally, increased funding will enable NASA to begin planning for the Earth Information Center and roll out the Wildfire Earth Information System and Fire Information for Resource Management System, which will provide immediate benefits to Western States. A robust investment will also allow the Earth Science Data Systems and Applied Earth Sciences programs to provide tools and resources for public and private decision-makers, including implementing open science capabilities for all of NASA's Science Mission Directorate

#### *Planetary Science Division*

Strong investment in this division will allow NASA to pursue the Lunar Discovery and Exploration Program, which supports commercial collaborations and innovative exploration approaches, without sacrificing a balanced portfolio of other missions and exploration targets in our solar system. Specifically, increased funding will allow the U.S. to advance missions to explore new destinations in the solar system, such as the Europa Clipper, Psyche and Dragonfly missions, and a robust competitive Discovery Program. An increased investment in planetary science will allow NASA to begin planning to implement the latest decadal survey.

#### *Heliophysics Division*

A robust investment in Heliophysics will allow us to better understand the space environment and therefore realize our space exploration ambitions while protecting existing assets and people in space. Investing in research and analysis will also maximize the return of large missions, while ensuring a thriving heliophysics community through the support of early career scientists and diversity, equity, and inclusion efforts. Finally, increased funding will ensure a 2027 launch for the Geospace Dynamics Constellation, which was the highest priority decadal large-scale mission, support technology investments in future missions such as an Interstellar Probe and/or a Solar Orbiter Prober; and provide a strong basis for an ambitious 2024 decadal survey.

#### *Office of STEM Engagement*

According to the National Science Board, our country has a STEM talent deficit that will reach the millions by FY2030. As such, it is critical that we invest in NASA's efforts to re-engage and support students interested in STEM. Increased funding for the office will allow NASA to increase engagement of K-12 students, broaden participation in NASA at all levels, and increase partnerships to further expand NASA's STEM impact across the United States.

#### NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION

AGU requests that Congress appropriate \$7.2 billion for NOAA in FY23 (a 22.5% increase over FY22). From weather forecasts to fisheries data, to groundbreaking research about the world around us, NOAA provides critical products and services to citizens, planners, emergency managers, and other decision makers, affecting more than one-third of the Nation's gross domestic product. Yet NOAA has for years remained severely underfunded.

Last year, there were 20 separate billion-dollar weather and climate disaster events across the U.S., costing a total of \$145 billion—the third most costly year on record, behind 2017 and 2005.<sup>1</sup> Those same disasters also caused more than 680 fatalities, the most disaster-related fatalities for the contiguous U.S. since 2011. With extreme weather becoming more frequent, more dangerous, and costlier to the Nation, especially in rural areas and marginalized communities. NOAA needs strong financial support to be able to bolster climate research, mitigate and prepare for worsening conditions, and build our National and economic resilience.

Robust funding for NOAA will also provide critical funding for satellites that provide weather forecasting, storm tracking, and long-term Earth observations to protect lives and infrastructure. Sufficient financial support will allow NOAA to maintain current launch and development schedules and develop the next generation of geostationary satellites, known as GEO-XO, well into the 2030s and beyond.

<sup>1</sup>NOAA's National Centers for Environmental Information. Calculating the cost of weather and climate disasters. <https://www.ncei.noaa.gov/news/calculating-cost-weather-and-climate-disasters>.

NOAA science also plays a vital role in informing the world about changes in the climate system, as well as the effectiveness of certain mitigation techniques and adaptation strategies. Robust funding will allow the agency to continue this innovative work and lead cross-agency efforts in extramural programs such as the Cooperative Institutes, and the Sea Grant Program. These programs not only conduct research and observations, but also promote outreach and education to serve the public in every region and state.

#### NATIONAL SCIENCE FOUNDATION

AGU requests that Congress appropriate \$11 billion for NSF in FY23 (an approximately 24.5% increase over FY22 levels). Ambitious and robust funding for NSF is critical if the U.S. hopes to maintain its leadership in science and technology and reap the economic and national security benefits of that leadership.

Robust funding will allow NSF to realize congressional goals through the new Technology, Innovation, and Partnerships Directorate without sacrificing core NSF research and STEM education programs. NSF currently supports almost a quarter of all basic research—and 56% of basic geoscience research—done at U.S. colleges and universities. Robust funding will allow NSF to continue this support, while expanding efforts to aid graduate students, which is essential if we hope to attract and retain those in STEM fields.

Increased funding will also allow NSF to build research capacity at emerging and underserved institutions through the new Growing Research Access for Nationally Transformative Equity and Diversity (GRANTED) Initiative and to launch Global Centers to facilitate the education and development of a global workforce to address climate and clean energy challenges. By leveraging financial resources and capabilities from multiple partners, this initiative has the potential to build capacity and scale solutions here and around the world.

#### CONCLUSION

With our Nation facing critical and interconnected challenges affecting our economic strength, national security, and health and well-being, strong investments in science and innovation—specifically the work done by NASA, NOAA, and NSF—are vital for a stronger, more secure, better future for America. AGU appreciates the subcommittee's leadership in these areas, as well as the opportunity to submit this testimony. Thank you for your thoughtful consideration of our requests.

[This statement was submitted by Brittany Webster, Manager, Science Policy & Government Relations]

---

#### PREPARED STATEMENT OF THE AMERICAN INDIAN HIGHER EDUCATION CONSORTIUM

On behalf of the Nation's Tribal Colleges and Universities (TCUs), which are the American Indian Higher Education Consortium (AIHEC), we are pleased to present our Fiscal Year 2023 (FY2023) recommendations regarding the National Science Foundation's TCU Program (NSF-TCUP), and the National Aeronautics and Space Administration's Minority University Research and Education Project (NASA-MUREP). We respectfully recommend the following funding levels:

#### NATIONAL SCIENCE FOUNDATION (NSF)

##### *Education and Human Resources Directorate (EHR):*

—*Tribal Colleges and Universities Program (TCUP).*—TCUs urge the subcommittee to fund competitively awarded NSF-TCUP grants at a minimum of \$25,000,000 for FY2023.

#### NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

—*NASA Headquarters, Office of Education—Minority University Research and Education Project (MUREP).*—TCUs urge the subcommittee to expand the NASA MUREP program with robust funding and establish a TCU-specific program within MUREP at \$5,000,000 for FY2023.

##### *Tribal Colleges and Universities: Raising and Training the Nation's Native STEM Workforce*

TCUs are an essential component of American Indian and Alaska Native STEM education, research, and workforce. Currently, 35 accredited TCUs operate more than 75 campuses and sites in 15 States. TCU geographic boundaries encompass 80 percent of American Indian reservations and Federal Indian trust lands. American

Indian and Alaska Native (AI/AN) TCU students represent more than 230 federally recognized Tribes and hail from more than 30 States. Nearly 80 percent receive Federal financial aid, and approximately half are first generation students. In total, TCUs serve more than 160,000 AI/ANs and other rural residents each year through a wide variety of academic and community-based programs. TCUs are public institutions accredited by independent, regional accreditation agencies and, like all U.S. institutions of higher education, must regularly undergo stringent performance reviews to retain their accreditation status.

The Federal Government, despite its direct trust responsibility and binding treaty obligations, has never fully funded TCU institutional operations as authorized under Federal law. Yet despite funding challenges, TCUs are responding to the STEM workforce needs across the country. In fall 2020, 1,733 TCU students were enrolled in one of 191 STEM programs at TCUs. TCUs have established programs in high-demand fields: 11 TCUs offer pre-engineering programs, two TCUs offer bachelor's degrees in industrial and electrical engineering, five TCUs offer STEM teacher education programs, and 14 TCUs offer nursing programs. These efforts are preparing AI/AN nurses, engineers, and science and math teachers who contribute to a robust pipeline of STEM professionals in Indian Country. TCUs also train professionals in other high-demand STEM fields, including agriculture, information technology, and natural resource management.

TCUs know that to break the cycle of generational poverty and end the culture of dependency that grips much of Indian Country, TCUs must bring industry partners and STEM jobs to Indian Country. TCUs and Tribes must promote new Native-owned and operated STEM-based businesses, create public-private partnerships, and build a culture of self-sufficiency and innovation. NSF and NASA funding is essential in supporting this effort to promote STEM-enabled economic development in Indian Country and throughout rural America.

Each of the following Federal grant programs has invested in the development of STEM-centered instruction, research, and job creation across Indian country.

#### NATIONAL SCIENCE FOUNDATION (NSF)

*Education and Human Resources Directorate (EHR)—Tribal Colleges and Universities Program (TCUP).*—TCUs urge the subcommittee to fund competitively awarded NSF-TCUP grants at a minimum of \$25,000,000. The NSF-TCUP, administered by the NSF Education and Human Resources Directorate, is a competitive grant program that enables TCUs and Alaska Native Serving/Native Hawaiian Serving Institutions (AN/NHs) to develop and expand critically needed STEM education and research programs relevant to their Indigenous communities.

Since the program began in 2001, NSF-TCUP has become the primary Federal program for building STEM programmatic and research capacity at TCUs. For example, NSF-TCUP funding supported Navajo Technical University (Crownpoint, NM) in the development of its electrical and industrial engineering programs, which received accreditation from the Accreditation Board of Engineering and Technology (ABET) in 2018. This marks a significant milestone, with NTU leading the way as the first TCU to receive ABET accreditation.

#### *Community-Based Research*

TCUs use NSF-TCUP funding to provide students with valuable research experience in STEM fields. Through these opportunities, students conduct place-based research that serves their communities and can have national and international impacts. At Northwest Indian College (NWIC) (Bellingham, WA), students are conducting complex research related to food security focused on salmon, shellfish, and indigenous sea cucumbers. Through a partnership with Western Washington University, NWIC graduates continue to pursue their academic and career goals through WWU's master's degree programs. Aaniiih Nakoda College (Harlem, MT) faculty and students monitor streams for contaminants and are investigating West Nile virus vectors; and Sitting Bull College (SBC) (Fort Yates, ND) has established a water quality monitoring laboratory serving the Standing Rock Sioux and surrounding communities. SBC studies show that students participating in the college's research have retention rates that are double the rate of students who are not engaged in research.

#### *Aaniiih Nakoda College (ANC)—Tribal Climate Resiliency*

The environmental science program at Aaniiih Nakoda College (Harlem, MT) is based on an effective model of place-based instruction that combines rigorous coursework, internship placements, and undergraduate research experiences focused on student learning. ANC students are using their education and research skills to

help combat the looming climate change crisis and its effects on their Fort Belknap Indian Community.

For over a decade, ANC environmental studies students have been studying the 23 miles of river that pass through Tribal lands to monitor changes in water temperatures, impact on life in the river, and quality of local drinking water. Student researchers collect samples of small bottom-dwelling aquatic insects and freshwater algae. The specimens are brought back to ANC's laboratory to be sorted, identified, and analyzed. Next, the specimens are transported six hours away across the State to a private laboratory in Missoula, Montana for advanced testing and further analysis. Until additional resources are available to build out the required research infrastructure, ANC and other TCUs will continue to work with similar limitations in conducting vital research necessary to support Tribal communities in preserving health, environment, and traditional ways of life.

These success stories notwithstanding, AI/AN students are disadvantaged from pursuing STEM-centered career from an early age. AI/AN youth have the highest high school drop-out rate of any ethnic or racial group in the country. Those who do pursue postsecondary education often require developmental classes before taking on a full load of college-level courses. Placement tests administered at TCUs to first-time entering students in academic year 2019–20 showed that 23 percent required remedial math. Our data indicates that while 53 percent will successfully complete the course, many will take more than 1 year to do so.

Through NSF–TCUP grants, TCUs and AN/NHs are actively working to address this problem by developing strong partnerships with their K–12 feeder schools to engage students in culturally appropriate STEM education and outreach programs. Salish Kootenai College, located on the Flathead Indian Reservation, created a 2-year STEM Academy to prepare junior and senior high school students for college. Participating high school students engage in collaborative work with STEM researchers, conduct culturally relevant research, and take courses to earn college credit.

While a number of TCUs have achieved significant advances and success, only a portion of the TCUs have been able to benefit from this transformative program due in part to limited funding. We urge the subcommittee to expand the competitively awarded NSF–TCUP grants at a minimum of \$25,000,000.

#### NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

*Minority University Research and Education Project (MUREP).*—TCUs urge the subcommittee to expand the NASA MUREP program with robust funding and support a TCU-specific program within MUREP at \$5,000,000 for fiscal year 2023. Under its current design, MUREP provides a range of competitive awards to Historically Black Colleges and Universities, Tribal Colleges and Universities, and other Minority Serving Institutions to recruit and retain underrepresented students in STEM fields.

Due to the competitive aspect of current MUREP programs and limited funding, TCUs only receive funding from two MUREP grants: MUREP Institutional Research Opportunity (MIRO) and MUREP for American Indian and Alaska Native STEM Engagement (MAIANSE).

#### *MUREP Institutional Research Opportunity (MIRO)*

In October 2019, under the MUREP MIRO program, Sitting Bull College received \$1 million to further develop curriculum for an environmental science master's degree and includes support for air quality research on the Standing Rock Reservation. SBC students and faculty work with NASA's Langley Research Center, NASA's Goddard Space Flight Center, and the University of North Dakota to develop a regional research facility to monitor air quality, generating important data for the Tribe while providing invaluable research experience for SBC students. In the same MUREP MIRO award cycle, Navajo Technical University was selected to perform critical research and produce parts through its advanced manufacturing program for the Space Launch System at NASA's Marshall Space Flight Center. NTU's contributions through advanced manufacturing research and innovative parts production are advancing space exploration for the entire nation.

#### *MUREP for American Indian and Alaska Native STEM Engagement (MAIANSE)*

The MAIANSE program provides a unique opportunity for direct collaboration between TCUs and NASA to engage students in NASA STEM-related activities. Despite its popularity and value, participation in the MAIANSE program has been limited to three TCU projects each grant cycles due to limited funding.

To support the past TCU investment, AIHEC requests that the subcommittee expand the NASA MUREP program through robust funding and support a Tribal College and University-specific program within MUREP at \$5,000,000 for FY2023.

#### CONCLUSION

Tribal Colleges and Universities provide access to high-quality, culturally appropriate postsecondary education opportunities, including STEM-focused programs, for thousands of AI/AN students. The modest Federal investment in TCUs has paid great dividends in terms of employment, education, and economic development. We ask you to renew your commitment to help move our students and communities toward self-sufficiency by full considering our fiscal year 2023 appropriations requests. Thank you.

---

#### PREPARED STATEMENT OF AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES

The American Institute of Biological Sciences (AIBS) appreciates the opportunity to provide testimony in support of fiscal year 2023 appropriations for the National Science Foundation (NSF). We encourage Congress to provide NSF with at least \$11 billion in fiscal Year 2023.

AIBS is a scientific association dedicated to promoting informed decision-making that advances biological research and education for the benefit of science and society. AIBS works to ensure that the public, legislators, funders, and the community of biologists have access to information that can guide informed decision-making.

#### IMPORTANCE OF BIOLOGICAL RESEARCH

Biological research is in our National interest. It advances our understanding of the living world and provides solutions to important problems. Increasing our knowledge of how genes, cells, tissues, organisms, and ecosystems function is vitally important to efforts to improve the human condition. Food security, medicine and public health, national security, economic growth, and sound environmental management are all informed by the biological sciences. Notably, biological research helps to sustain biodiversity and healthy ecosystems that underpin the livelihoods of communities. The knowledge gained from NSF-funded research also contributes to the development of new research tools and industries.

Biological research strengthens our economy. Research funding from NSF powers the expansion of the bioeconomy and has given rise to successful companies, such as Genentech, Ekso Bionics, and Ginkgo BioWorks, as well as new industries that provide more robust food crops or disease detection tools and techniques. The translation of biological knowledge into formal and informal education programs fosters the development of the scientifically and technically skilled workforce needed by employers. Data show that employers continue to seek workers with scientific and technical skills. Science and engineering employment in the United States has grown more rapidly—at an annual growth rate of 4 percent—compared to the 2 percent annual growth rate for the U.S. workforce overall. In fact, the U.S. STEM workforce constitutes 23 percent of the total U.S. workforce and is comprised of more than 36 million people in diverse occupations that require STEM knowledge and expertise.

#### IMPORTANCE OF NSF-FUNDED BIOLOGICAL RESEARCH

The cornerstone of NSF excellence is a competitive, merit-based review system that underpins the highest standards of excellence. Through its research programs, NSF invests in the development of new knowledge and tools that solve the most challenging problems facing society.

—*Combating emerging diseases:* NSF-funded research is playing crucial role in our response to the COVID-19 pandemic. Fundamental research supported by NSF led to the development of critical diagnostic tools and medical devices to combat the outbreak. NSF supported the discovery of bacteria from thermal pools at Yellowstone National Park that contain thermostable enzymes that allow for the rapid copying of genetic material through a process called Polymerase Chain Reaction (PCR). This process was integral to manufacturing a widely used clinical test for determining whether a patient has been infected with the virus that causes COVID-19.

—*Mobilizing big data:* Access to and analysis of vast amounts of data are driving innovation. NSF enables integration of big data across scientific disciplines, including applications in the biological sciences. Digitization of biodiversity and natural science collections involves multi-disciplinary teams, which have put

more than 130 million specimens and their associated data online for use by researchers, educators, and the public.

—*Enabling synthetic biology*: DNA editing has become more advanced and targeted with techniques such as CRISPR–CAS9 allowing scientists to rewrite genetic code and redesign biological systems. NSF funds research on how these techniques can be used to bio-manufacture new materials, treat diseases, and accelerate growth of the bioeconomy.

Other examples of federally-funded research that have benefited the public are chronicled in the AIBS report, “Biological Innovation: Benefits of Federal Investments in Biology,” which is available at <https://www.aibs.org/assets/pages/policy/AIBS-Biological-Innovation-Report.pdf>.

The NSF is the primary Federal funding source for biological research at our Nation’s universities and colleges, providing 65 percent of extramural Federal support for non-medical, fundamental biological and environmental research at academic institutions.

The NSF is also an important supporter of biological research infrastructure, such as field stations, natural history museums, and living stock collections. These place-based research centers enable studies that take place over long periods of time and variable spatial scales to provide insights into our Nation’s most pressing issues.

Scientific collections are an important component of our Nation’s research infrastructure. Recent reports have highlighted the value of mobilizing biodiversity specimens and data in spurring new scientific discoveries that grow our economy, improve our public health and well-being, and increase our National security. In 2019, the Biodiversity Collections Network released their report, “Extending U.S. Biodiversity Collections to Promote Research and Education,” outlining a national agenda that leverages digital data in biodiversity collections for new uses and calling for building an Extended Specimen Network. A 2020 report by the National Academies of Science, Engineering and Medicine, “Biological Collections: Ensuring Critical Research and Education for the 21st Century,” argued that collections are a critical part of our Nation’s science and innovation infrastructure and a fundamental resource for understanding the natural world.

Both reports articulate a common vision of the future of biological collections and define the need to broaden and deepen collections and associated data to realize the full potential for biodiversity collections to inform 21st century science. This endeavor requires robust investments in our Nation’s scientific collections, whether they are owned by a Federal or state agency or are part of an educational institution, free-standing natural history museum, or another research center.

While many Federal agencies have a role in supporting the development of the Extended Specimen Network, NSF has a central role to play. The agency has been a leader in this space through the Advancing Digitization of Biodiversity Collections program, and is now supporting critical advancements through the Infrastructure Capacity for Biological Research: Biological Collections program.

#### BUILDING THE STEM WORKFORCE

The NSF supports recruitment and training of our next generation of scientists. Support for undergraduate and graduate students is critically important to our research enterprise. Students learn science by doing science, and NSF programs engage students in the research process.

NSF awards reached 1,900 colleges, universities, and other public and private institutions across the country in FY 2021. Initiatives such as the Graduate Research Fellowship and the Faculty Early Career Development program are important parts of our National effort to attract and retain the next generation of researchers. Since 1952, the number of students supported by NSF Graduate Research Fellowships has grown to more than 60,000. In FY 2021, nearly 318,000 people, including researchers, postdoctoral fellows, trainees, teachers and students, were supported directly by NSF.

#### INVESTING IN NSF

Unfortunately, Federal research and development investments are shrinking as a share of the U.S. economy. The U.S. is still the largest performer of research and development globally, but our share of worldwide scientific activity has declined considerably over the past two decades, while countries in East and Southeast Asia, especially China, have been rapidly increasing their investments in science. According to the National Science Board, the annual increase of China’s R&D, averaging 10.6 percent annually between 2010 and 2019, continues to outpace that of the United States, with an annual average of 5.4 percent from 2010 to 2019.



To remain at the global forefront of innovation and to fully realize the benefits of NSF-supported research, the government must make bold and sustained investments in NSF. Unpredictability in funding disrupts research programs, create uncertainty in the research community, and stall the development of the next great idea.

Enacting robust funding increases for NSF will allow for critical Federal investments in scientific and educational research, as well as support for the development of the scientific workforce. These investments will allow NSF to increase the number of new graduate research fellowships it awards to nurture the human capital needed to ensure U.S. leadership in scientific innovation. Such increases will also enable NSF to expand support for important new initiatives, such as the Integrative Biology program, which promotes ambitious, high-risk-high-reward collaborative research, and the Biology Integration Institutes program, which supports collaborative research on frontier questions about life that span multiple disciplines within and beyond biology.

#### CONCLUSION

Providing the NSF with at least \$11 billion in FY 2023 is necessary to undo the harmful effects of recent stagnant funding that slowed American scientific discovery. The requested funding will grow and sustain the U.S. bioeconomy and enable NSF to accelerate work on important initiatives at the frontiers of science and engineering. This investment will enable NSF to support research in a number of important priority areas such as biotechnology, climate change, and advanced biomanufacturing. Importantly, these increases will advance research on infectious disease emergence and transmission, prevent future pandemics, and fill gaps in our knowledge about the spread and evolution of biological threats.

In addition to the appropriations process, Congress is currently considering legislation relevant to the scientific community, specifically reauthorization proposals to significantly expand NSF's mission and budget. Increasing investments in translational research through the new technology-focused directorate will bolster U.S. global leadership and competitiveness in innovation. However, we urge Congress to also make robust investments in basic and foundational research.

Please continue supporting increased investments in our Nation's scientific capacity. Thank you for your thoughtful consideration of this request and for your prior efforts on behalf of science and the National Science Foundation.

[This statement was submitted by Jyotsna Pandey, PhD, Public Policy Director]

#### PREPARED STATEMENT OF AMERICAN PSYCHOLOGICAL ASSOCIATION SERVICES, INC.

The American Psychological Association (APA) is the largest scientific and professional organization representing psychology in the United States, with more than 133,000 researchers, educators, clinicians, consultants and students as its members. Our mission is to promote the advancement, communication, and application of psychological science and knowledge to benefit society and improve lives.

*APA urges Congress to provide the following funding levels for programs within the National Science Foundation (NSF) and Department of Justice (DOJ) in FY23.*

#### NATIONAL SCIENCE FOUNDATION (NSF)

*APA joins the scientific community urging Congress to provide at least an \$11 billion appropriation for the National Science Foundation (NSF) in FY 2023.* As a member of the Coalition for National Science Funding, APA thanks Congress for its support for fundamental scientific research supported by NSF, including the approximately 4% increase in fiscal year 2022. As other nations continue to make dramatic increases in their investments in science, robust funding for NSF in FY 2023 can help the United States maintain its global leadership and competitiveness in science and engineering. Increased support for NSF will also provide funding for the more than \$3 billion in high-quality proposals (as estimated by the National Science Board) submitted to NSF each year that cannot be funded.

*APA urges continued investments in core psychological science research at NSF.* NSF is the only Federal agency whose primary mission is to support basic nonbiomedical research and education across all fields of science, technology, engineering, and mathematics. Although psychological science receives funding from various directorates within NSF, most core psychological research is supported by the Social, Behavioral, and Economic Sciences (SBE) Directorate. SBE supports research that focuses on variables that influence human behavior across all ages, interactions among individuals and groups, and the development of social and economic systems.

While SBE funding accounts for more than 60% of the Federal funding for basic social and behavioral science research at academic institutions, SBE has received historically lower levels of funding—the lowest funding level of the seven NSF Directorates. In addition to the core behavioral research in cognitive neuroscience, human cognition and perception, learning and development, and social psychology, SBE continues to invest substantial funds to participate in special initiatives and cross-directorate programs that address vital national priorities, including emerging technologies in society.

*In addition to the SBE Directorate, APA encourages continued support for the Biological Science Directorate (BIO) and Computer Science and Information Systems Engineering Directorate (CISE), both of which provide important support for psychological research at NSF.* BIO provides support for psychologists who study the principles and mechanisms that govern life from the level of the genome and cell, to the whole family, individual, or species. The work of CISE is of particular importance given the emphasis from Congress and the Administration on emerging technologies and artificial intelligence (AI). Knowledge derived from psychological science is essential to the work in many of the CISE divisions, as human behavior plays a key role in the design and implementation of new technologies. Human factors psychology is relevant for the development and advancement of automated systems in autonomous vehicles, essential for the creation of trustworthy and explainable AI, and necessary for research on the future of work.

*APA also urges the Committee to provide robust support for research proposed by NSF's Convergence Accelerator and Technology, Innovation, and Partnerships (TIP) Directorate.* The Convergence Accelerators offer new funding opportunities for research, including enhancing opportunities for persons with disabilities, developing sustainable materials for global challenges, and addressing food and nutrition security. TIP is the first new directorate at NSF in over 30 years. Its mission is to harness the Nation's vast and diverse talent pool, to advance critical and emerging technologies, to address pressing societal and economic challenges, and to accelerate the translation of research results from lab to market and society. The social, behavioral, and economic sciences are integral to these efforts which can improve U.S. competitiveness, grow the U.S. economy and train a diverse workforce for future, high-wage jobs.

*APA strongly encourages NSF to support research to prevent, prepare for, and respond to future pandemics.* The COVID-19 worldwide public health crisis persists, contributing to nearly 1 million deaths and around 82 million confirmed cases in the United States (U.S.) alone. Clear evidence illustrates wide health disparities in COVID-19 cases and vaccine distribution. COVID-19 has disproportionately impacted racial and ethnic minority communities across the U.S., particularly the African American community. In addition to the human toll, the impacts of COVID-19 have reached every sector of society, including health care, transportation, and economics and business. Psychological research supported by NSF has provided important insights to help recover from COVID-19 as well as prepare for future pandemics and their impacts on people, communities, and society. Stress and worry about contracting the virus, coupled with job losses, loss of childcare, as well as the devastating loss of loved ones due to COVID-19 are just a few examples of the specific ways the pandemic has affected mental health. To help accelerate healing and recovery, NSF partnered with the National Academies of Science, Engineering, and Medicine (NASEM) early in the pandemic to leverage knowledge from the social, behavioral and economic (SBE) sciences and create the Societal Experts Action Network (SEAN). SEAN helps NASEM and NSF's SBE Directorate to provide key decision makers rapid expert consultation and develop evidence-based recommendations to support local, State, and national responses to COVID-19, having published 16 reports to date. The latest guidance from the Societal Experts Action Network (SEAN) highlights new and updated COVID-19 data measures and surveillance strategies that decision makers can use to inform policy.

*APA urges the Committee to help curb the potential loss of research talent likely to occur if early-career researchers are forced from scientific pathways due to economic or social circumstances which attenuate career progression and threaten their professional futures.* While scientists across career stages have been upended by this monumental shift, early-career scientists, such as graduate students, postdoctoral fellows, and junior faculty, are particularly vulnerable. The interruptions to science during the COVID-19 pandemic still threaten the research careers of an estimated 668,000 graduate students and 64,000 postdoctoral fellows according to the National Center for Science and Engineering Statistics, a component of NSF's SBE Directorate. Early-career scientists are often just beginning to establish research independence and the negative impacts of the pandemic may be significant and long-lasting. Destabilizing fluctuations in research productivity, faculty positions in aca-

demia, and funding opportunities will impact early-career scientists in the immediate and late phases of their careers.

*APA applauds NSF's investments in climate science and sustainability research.* NSF has developed crucial funding mechanisms for climate and clean energy-related research over the past year that must continue. They fund a broad portfolio of research related to climate science and clean energy, including research the social, behavioral, and economic research on human responses to climate change. Nearly all subject areas and approaches within psychology (including environmental, cognitive, social, community, developmental, educational, school, counseling, clinical, neuroscientific, health, psychodynamic, humanistic, industrial and organizational, human factors, and other subfields) offer concepts, methods, and tools that can be applied or elaborated to address climate change.

*APA supports NSF's continued mission to broaden participation in science, research, and education.* We encourage greater investments in programming to diversify the scientific workforce through targeted support of scholars from diverse backgrounds and resources specifically for development and training. Additionally, we urge greater engagement with minority serving institutions (MSIs) and improved investment with their communities to further represent minority and historically underrepresented populations in scientific research. APA believes that these activities are necessary for the success of the scientific enterprise in the U.S. and it is imperative that NSF, through its actions, demonstrate compelling leadership to diversify the scientific landscape of the future.

#### DEPARTMENT OF JUSTICE (DOJ)

APA is committed to reforming policing and the criminal justice system, supporting those with mental illness within the system, meeting the needs of victims of violence, and ensuring that high-value research is funded, and the best scientific evidence is used to improve programs and policies.

*APA urges the Committee to adopt a reform-minded approach by increasing appropriations for the following Office of Justice (OJP) and Bureau of Prisons (BOP) Programs.* Within OJP, APA urges the Committee to provide \$45 million for the Bureau of Justice Statistics; \$43 million for the National Institute of Justice; \$125 million for the Second Chance Act including \$5 million to support Children of Incarcerated Parents demonstration grants; \$35 million for Justice Reinvestment; \$117 million for Delinquency Prevention Program. To address the impact the COVID-19 pandemic has had on increases in drug misuse, APA recommends: \$418 million for the Comprehensive Addiction and Recovery Act related activities including \$95 million for Drug Courts; \$25 million for Veterans Treatment Courts; \$35 million for Residential Substance Abuse Treatment; \$190 million for the Comprehensive Opioid Abuse Program; and \$40 million for the Justice and Mental Health Collaboration Program. APA supports \$10 million for Crisis Stabilization and Community Reentry Grant Program; \$140 million for STOP School Violence Act; \$50 million for Mentally Ill Offender Treatment and Crime Reduction Act; and \$21 Million for Improving Suicide Prevention Resources for States' Extreme Risk Protection Orders; \$3 million for the Missing Americans Alert Program (Kevin and Avonte's Law). Within BOP, APA recommends \$409.5 million for the First Step Act. Though rates of domestic abuse have declined significantly since the enactment of the Violence Against Women Act (VAWA), exposure to violence remains common, with one in three women in the U.S. experiencing rape, physical violence, or stalking at some point in their lifetime. Flat funding for the Office on Violence Against Women (OVW) would imperil progress made over the last three decades, especially now that the risks are even more severe. The stay-at home orders necessary for public safety during the COVID-19 pandemic seriously increased the risk of intimate partner violence, domestic violence, and child maltreatment.

*APA urges the Committee to increase FY23 appropriations for OVW and prioritize the prevention of violence across the lifespan—including domestic and sexual violence, dating violence, and stalking, as well as children's exposure to family violence.*

Of the FY 2023 funds made available to the OVW, APA specifically requests: \$400 million for Services, Training, Officers Prosecutors (STOP) Grants; \$17.5 million for Education and Training to End Violence Against Women with Disabilities; \$10 million for the Enhanced Training and Services to End Violence Against and Abuse of Women in Later Life Program (Abuse in Later Life Program); \$5.5 million for grants to assist Tribal governments in exercising special domestic violence criminal jurisdiction; \$47.5 million for Rural Domestic Violence and Child Abuse Enforcement; \$18 million for the Consolidated Youth Oriented Program; and \$40 million for grants to reduce violent crimes against women on campus. These programs are cru-

cial in preventing further violence, helping victims find safety and support, and starting them on the path towards recovery.

Psychological research has revealed effective strategies to enhance law enforcement and community relations, improve public safety, and reduce the risks of violence and aggression. These include the development of community-informed responses to violence, implementation of community-based policing implemented in a way that builds trust between police and the communities they serve, training on stereotypes and the effects of implicit bias. *APA urges the Committee to increase FY23 funding for the Office of Community Oriented Policing Services (COPS) to support federal, State, and local activities.* In particular, APA requests \$23 million for the Just Police Program (JPP); \$12 million for the Community Policing Development Program to help bolster training for responding to people with mental illness/disability, and \$16 million for the Law Enforcement Mental Health and Wellness Program to address the alarming rates of suicide among police officers.

[This statement was submitted by Katherine B. McGuire, Chief Advocacy Officer]

#### PREPARED STATEMENT OF AMERICAN SOCIETY FOR ENGINEERING EDUCATION

*Summary:* This written testimony is submitted on behalf of the American Society for Engineering Education (ASEE) to the Senate subcommittee on Commerce, Justice, Science, and Related Agencies for the official record. ASEE appreciates the Committee's support for the National Science Foundation (NSF) and asks you to robustly fund the agency in (FY) 2023, including the Research and Related Activities and the Education and Human Resources accounts. ASEE joins the academic and scientific community in requesting support of at least \$11 billion for NSF in FY 2023 to help alleviate impacts of historical underinvestment at NSF, advance core research and education activities, and address critical technologies where the U.S. is facing major competition from China. At NASA, ASEE supports the Administration's proposed growth for the Space Technology Mission Directorate (STMD) to increase its investment in crosscutting NASA technology gaps which support engineers and scientists in developing technology to advance science and space missions in the National interest. ASEE also supports proposed growth to NASA's Office of Education to advance NASA's initiatives to broaden participation of underrepresented groups in science and engineering.

*Written Testimony:* The American Society for Engineering Education (ASEE) is dedicated to advancing engineering and engineering technology education and research and is the only society representing the country's schools and colleges of engineering and engineering technology. Membership includes over 12,000 individuals hailing from all disciplines of engineering and engineering technology and includes educators, researchers, and students as well as industry and government representatives. As the pre-eminent authority on the education of engineering professionals, ASEE works to develop the future engineering and technology workforce, expand technological literacy, and convene academic and corporate stakeholders to advance innovation and sound policy.

#### NATIONAL SCIENCE FOUNDATION

Engineering shapes our Nation and powers our innovation ecosystem. NSF basic research, conducted in engineering schools and colleges around the country, catalyzes new industries and revolutionary advances. There is high demand for a workforce of well-trained engineers in industry and government to leverage these discoveries and develop innovative new technologies to improve our future. The partnership between the Federal Government and universities is essential to growth and innovation across our economy, and is helping to solve challenges in health, energy, and national security. NSF is a tremendously important piece of this innovation ecosystem, funding basic engineering and engineering education research at universities and supporting students to enable access to engineering education.

ASEE is grateful for recent increases, yet concerned that these investments have not kept pace with international competitors or growing research needs. Due to budget limitations, NSF is currently unable to fund \$3.9 billion worth of very good and excellently rated proposals each year.<sup>1</sup> With more funding, tremendous amounts of additional research and development could be undertaken, leading to novel and transformative discoveries. As the National Science Board predicted, in 2018 China surpassed U.S. investments in research and development. As some countries have

<sup>1</sup> [https://www.nsf.gov/nsb/publications/2021/merit\\_review/FY-2020/nsb202145.pdf](https://www.nsf.gov/nsb/publications/2021/merit_review/FY-2020/nsb202145.pdf).

been steeply accelerating research funding, increasing NSF's appropriation would help secure continued U.S. global innovation leadership.

NSF funding has additionally fallen far behind other research agencies, risking distortions in the overall STEM ecosystem. For example, over the last decade the Department of Energy (DOE) Office of Science has grown faster than NSF and is approaching having the same funding level as NSF, despite studying a much narrower range of topics. Other agencies depend on NSF-funded discoveries and workforce development for their missions. NSF-funded research catalyzes fundamental advances that are utilized for national security applications while engineers trained with NSF funding become key components of the National security workforce and industrial base.

Additionally, NSF has a critical role to play in promoting economic recovery and research on many aspects of the pandemic. Continued support of NSF will be critical as the engineering community and the country move into the next phase of the COVID-19 pandemic. Engineers across the country adapted quickly to the realities of the pandemic, but challenges and disparities remain. NSF will be crucial to rebuilding the STEM pipeline, and building a better, more diverse and resilient STEM workforce.

*ASEE joins the research and higher education community in requesting that the Committee fund NSF at \$11 billion in FY 2023 to drive advances in research and education and ensure the U.S. retains global competitiveness and scientific leadership.*

Investments in engineering education and research from NSF are essential for having a workforce trained and ready to contribute to industry, government, and academia. NSF is a major supporter of engineering research and workforce initiatives funding 45 percent of engineering and 79 percent of computer science academic fundamental research. NSF-funded advancements touch every corner of our lives and economy, from wireless systems to advanced manufacturing, and from new tools to combat brain diseases to technologies to ensure our cybersecurity. NSF supports engineering education at all levels, ensuring the next generation of the U.S. engineering workforce is appropriately prepared to contribute and innovate and that domestic students are attracted to careers in engineering and engineering technology.

The NSF Directorate for Engineering (ENG) provides critical support for engineering education and research across the breadth of the discipline. These investments have dual outcomes of training future engineers that will discover tomorrow's innovations, all while furthering today's cutting-edge research. Engineering investments at NSF provide critical advancements in areas such as resilient infrastructure, advanced materials and manufacturing, and bioengineering, in addition to equipping students with the skills they need to be the next generation of technological leaders. Divisions such as Engineering Education and Centers (EEC) support university research, Engineering Research Centers, and engineering curriculum revitalization, including a new expansion to support 2-to-4-year transfer students. ENG grantees have robust partnerships with industry, expand the boundaries of our understanding of how students most effectively learn engineering, provide experiential opportunities fundamental to engineering education.

The NSF Directorate for Computer and Information Science and Engineering also plays a key role supporting engineering education and research, particularly within the Division of Information & Intelligent Systems, which supports efforts at the frontiers of information technology, data science, and artificial intelligence, among other areas. These investments are critical as we move into a world even more reliant on human-technology interactions. The Division of Computer and Network Systems has been building capacity within Minority Service Institutions to contribute to both the knowledge base and human resource base in computing and engineering.

ASEE is excited by the establishment of the Directorate for Technology, Innovation and Partnerships and believes the new directorate will help maintain the United States' leadership role in technological innovation and development of critical technologies. However, ASEE urges the subcommittee to provide NSF with enough funding to meet this expanded mission in emerging technologies, research translation, and expanding the geography of innovation while protecting core activities that sustains our science and technology ecosystem.

ASEE strongly supports NSF Education and Human Resources (EHR) funding to foster inclusive and effective learning and learning environments. The STEM workforce, particularly engineers, and computer scientists, drives our innovation and economic development. We need to fully develop all of our Nation's human talent in order to tackle pressing problems, including the STEM technical workforce, professional engineers, and advanced degree holders. Access to STEM experiences and skills are a critical aspect of developing well-rounded citizens, technological literacy, and the future STEM workforce. ASEE supports EHR programs including Improv-

ing Undergraduate STEM Education (IUSE) and Innovations in Graduate Education (IGE). The first is critical for preparing professional engineers and enhancing engineering educational experiences to broaden participation and retention, and the latter works to revolutionize graduate studies to best prepare students for STEM careers.

NSF plays a key role ensuring the development of new tools for teaching engineering design and analysis skills, which are under-taught in today's K-12 classrooms. As noted in the 2009 National Academies report *Engineering in K-12 Education*, engineering education has received little attention yet has the potential to improve student learning and achievement in other areas of STEM, increase awareness of engineering careers, and increase technological literacy. Engineering's focus on design and analysis enhances problem solving, teaches students new ways to approach challenges, and encourages students to connect science and math topics to real-world applications- all skills critical to the future technical workforce. ASEE supports programs to fill workforce needs including Advanced Technical Education (ATE) that prepares advanced technicians for America's high-skills workforce and graduate research fellowships and traineeships to create a pipeline of students knowledgeable and excited about engineering.

#### NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ASEE is supportive of the Administration's proposed increases to the National Aeronautics and Space Administration (NASA) in its Space Technology Mission Directorate (STMD). Of importance to ASEE, STMD activities support the workforce development pipeline of future space engineers and technicians by engaging directly with the academic community through early career faculty programs, early-stage research grants, and university-led multidisciplinary research institutes. The disruptions to the STEM pipeline caused by the COVID-19 pandemic makes this work even more crucial. STMD's broad portfolio of activities helps to meet NASA's science objectives, establishes new commercial and academic partnerships, and stimulates the growth of the Nation's technology sector. STMD programs fill significant capability gaps for NASA and better position the agency to meet its long-term strategic goals in areas across all its directorates ranging from propulsion and power generation to materials science and high-performance computing. ASEE applauds the Administration's support of STMD's vital role and urges the subcommittee to support STMD's ability to focus on a broad array of NASA technology challenges, continue its engagement with the academic and private sectors, and keep long-term focus beyond specific near-term mission goals.

ASEE is also supportive of the Administration's proposed increase for NASA's Office of STEM Engagement and asks that the Committee support the proposed funding for this office in fiscal Year 2023 and beyond. NASA STEM Engagement programs inspire students to pursue engineering, science, and technology careers, and this office plays a vital role coordinating STEM education programs throughout the agency, including those at NASA centers. ASEE supports the continuation of the National Space Grant College and Fellowship Program (Space Grant), which supports university consortia in all 50 States, funding fellowships for engineering and other STEM students, while also offering important resources for faculty professional development and strengthening curricula. ASEE is also supportive of initiatives at the NASA Office of STEM Engagement to broaden participation of under-represented groups in STEM and to bring engineering design and analysis experiences to K-12 students.

#### CONCLUSION

NSF education and research investments have truly transformed our world through engineering breakthroughs such as the internet, fiber-optics, and medical imaging technology. These investments keep our communities safe, lower healthcare costs, and spur our economy. Today, engineering research is opening possibilities through advances in areas such as artificial intelligence, biosensors, and advanced materials. We ask that you robustly fund NSF at \$11 billion to support critical education and research programs that support our National security, address critical national challenges, and advance our economic competitiveness. In addition, at NASA, we urge you to fund proposed increases for NASA's Space Technology Mission Directorate and Office of STEM Engagement. Thank you for the opportunity to submit this testimony.

[This statement was submitted by Adrienne R. Minerick PhD, President, and Norman Fortenberry, ScD, Executive Director]

## PREPARED STATEMENT OF THE AMERICAN SOCIETY FOR MICROBIOLOGY

The American Society for Microbiology (ASM) appreciates the opportunity to submit outside witness testimony for the Fiscal Year 2023 Commerce, Justice, Science and Related Agencies appropriations bill in support of increased funding for the National Science Foundation (NSF) and increased coordination of microbiome research by the White House Office of Science and Technology Policy (OSTP). ASM is one of the oldest and largest life science societies with 30,000 members in the U.S. and around the world. Our mission is to promote and advance the microbial sciences, including programs and initiatives funded by Federal Government departments and agencies, by virtue of the integral role microorganisms play in human health and society. Microbial science is a cross-cutting endeavor, and our members' federally funded research is fundamental to advances in human health, agriculture, energy, and the environment. For FY2023, ASM recommends the following:

*Provide at least \$11 billion for the National Science Foundation in Fiscal Year 2023.*

The NSF is a key supporter of microbiology research, including foundational research supporting ecosystems and biodiversity, mapping the microbiome, and discovering emerging pathogens. NSF-funded researchers across the country are working to improve lives through research on human and animal health, agriculture, energy, the environment, and biothreats. NSF funding is key to cultivating a diverse and inclusive scientific workforce that is prepared for future challenges and discoveries. However, due to lack of Federal funding, NSF was unable to fund nearly \$4 billion in highly rated research proposals in FY2020.

Fundamental research supported by NSF will enable new discoveries and solutions using biotechnology to promote the bioeconomy, forecasting and mitigating the impacts of global warming on essential ecosystem services, and predicting and preventing the emergence and spread of infectious diseases. NSF-funded research advances our understanding of the 70 percent of emerging human pathogens that have non-human origins, which pose serious threats to human health and global health security. To continue to achieve its goals, it is critical that the FY2023 appropriations bill robustly fund NSF.

*Urge the Office of Science and Technology Policy to implement FY2022 CJS Appropriations report language on the microbiome and revisit the Interagency Strategic Plan for Microbiome Research.*

Interagency coordination is more crucial than ever and responding to 21st challenges will require interdisciplinary and interagency coordination. Microbiome science aims to advance understanding of microbial communities (microbiomes) for applications in areas such as health care, food production, and environmental restoration to benefit individuals, communities, and the environment. Understanding of the microbiome has evolved significantly since the concept of the human microbiome emerged roughly two decades ago. Today it is understood that microbial communities exist on, in, and around people, animals, and the environment, and directly impact health and disease states. It is also clear that microbiome research and coordination are essential to unlocking the full potential of the bioeconomy. However, the rapid pace of discovery and the interdisciplinary nature of microbiome research necessitates cross-agency coordination and a robust data sharing infrastructure.

Launched in 2016, the National Microbiome Initiative pledged \$121 million in funding from Federal agencies and \$400 million in total cash and in-kind contributions from 100 companies, foundations and academic institutions. As part of this initiative, the Federal Microbiome Interagency Working Group developed the Interagency Strategic Plan for Microbiome Research, providing recommendations for improving coordination of microbiome research among Federal agencies and between agencies and non-Federal domestic and international microbiome research efforts. The 5-year Strategic Plan envisioned coordinated microbiome research activities across 21 government agencies, set out interagency objectives, structure and operating principles, and noted several research focus areas.

ASM is grateful to the House and Senate Appropriations Committees for including requested language in FY2022 report language that asks OSTP to review the Interagency Strategic Plan for Microbiome Research, to evaluate the progress made, consider whether the Federal investment has been adequate to fully realize the promise of this initiative, and begin the process to develop a strategic plan for interagency collaboration in this essential research for the next 5 years. We encourage the Committee to follow up with OSTP on implementation of this language.

## CONCLUSION

ASM is particularly grateful to Congress for increasing investment in the NSF in recent years. In FY2023, we urge Congress to revisit OSTP's past commitment to microbiome research and to increase funding for NSF to \$11 billion. We thank you for your continued support for microbe-powered innovation.

[This statement was submitted by Allen Segal, Director of Public Policy and Advocacy]

---

PREPARED STATEMENT OF THE AMERICAN SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS

On behalf of our over 2 million supporters, The American Society for the Prevention of Cruelty to Animals (ASPCA) appreciates this opportunity to submit testimony to the Senate Appropriations subcommittee on Commerce, Justice, Science, and Related Agencies. Founded in 1866, the ASPCA is the first humane organization established in the U.S. and serves as the Nation's leading voice for animal welfare. We respectfully request that the subcommittee consider the following concerns when making fiscal year 2023 appropriations.

## POLICE ENCOUNTERS WITH PETS

Media reports about violent encounters between law enforcement officers and pets—most often family dogs—are far too commonplace across the country. The ASPCA believes that the vast majority of these incidents are avoidable. The U.S. Department of Justice (DOJ) can assist in reducing these incidents by collecting national data around them and by providing resources for techniques to handle police and dog encounters in law enforcement de-escalation trainings. Tragedies like this take a serious toll on communities, further eroding trust with law enforcement, escalating tense situations, and endangering bystanders. There are many troubling examples of these incidents, some of which have garnered media attention in the last 18 months.<sup>1</sup>

Shootings involving pets often account for a significant percentage of the total firearms discharges in a particular agency. Data from some municipalities suggest that 25–75 percent of all police firearm discharges are directed at dogs.<sup>2</sup> One DOJ official estimated that several thousand dogs annually are killed by law enforcement officers and described the phenomenon as “an epidemic.”<sup>3</sup> Additionally, research reveals that these incidents take a disproportionate toll on communities of color. An analysis of officer-involved shootings in Los Angeles County revealed that between 28–46 percent of all firearms discharges were directed at dogs, and these shootings were geographically clustered in low-income communities of color.<sup>4</sup>

The House Fiscal Year 2022 Commerce, Justice, and Science Appropriations report included language directing the DOJ to include use of force incidents in any Federal database created to track law enforcement's use of force more broadly, or to submit a report on how this can be accomplished within 180 days. This language was included by reference in the final report. We greatly appreciate the subcommittee's support to include this new language. The DOJ recently announced a new police reform initiative, providing resources for de-escalation trainings, among other community-oriented policing priorities.<sup>5</sup> This request is in line with this administrative priority.

<sup>1</sup> On May 3, Sacramento police officers shot and killed a family dog while serving a search warrant on the property. On April 17, Chicago police officers shot and injured a family dog while responding to a domestic dispute. Body cam footage from April 11 shows a Jacksonville, Florida police officer shooting and killing a family's 1-year-old puppy in her yard while responding to a neighbor's 911 call. Body cam footage from January 12 shows a Miami Dade officer shooting and killing a family dog seven times while responding to a barking complaint. On April 11 of last year, New Orleans police officers shot and killed an 18-week-old rescue puppy in his yard while responding to a 911 call. On March 23 of last year, the Tampa PD shot the dog of the woman who had called them for help.

<sup>2</sup> Bathurst, Cynthia, Donald Cleary, Karen Delise, Ledy VanKavage, and Patricia Rushing. 2015. *The Problem of Dog-Related Incidents and Encounters*. Washington, DC: Office of Community Oriented Policing Services; <https://cops.usdoj.gov/RIC/Publications/cops-p206-pub.pdf>.

<sup>3</sup> Griffin, David; “Can Police Stop Killing Dogs?” *Police Magazine*; Oct. 29, 2014; <https://www.policemag.com/341722/can-police-stop-killing-dogs>.

<sup>4</sup> Stefano Bloch, Daniel E. Martinez. 2020. *Canicide by Cop: A geographical analysis of canine killings by police in Los Angeles*. *Geoforum*: 111. 142–154; <https://www.sciencedirect.com/science/article/abs/pii/S0016718520300440>.

<sup>5</sup> <https://www.justice.gov/opa/pr/justice-department-announces-40-million-funding-advance-community-policing-and-5-million>.



*Encourage documentation and tracking for incidents of police use of force against pets:*

Use of force reporting requirements among State and local law enforcement agencies are inconsistent, and many agencies do not require documentation for use of force incidents involving pets. Federally, no nationwide data exists regarding the prevalence of these tragedies, or for officer-involved shootings more broadly. DOJ's Federal Bureau of Investigation operates a National Use of Force Data Collection, which allows law enforcement to voluntarily provide data on use-of-force incidents. The voluntary data, which currently reflects only 40 percent of the total law enforcement officer population, does not, apparently, include incidents involving pets.<sup>6</sup> A publication by the DOJ's Office of Community Oriented Policing Services (COPS) recognized the lack of data on this issue and urged law enforcement agencies to examine questions like how often police officers discharge firearms in dog-related incidents and how many dogs have been killed to better understand and address this problem.<sup>7</sup> Understanding the scope and frequency of these incidents is fundamental to avoiding them.

*Provide resources and training to de-escalate police encounters with pets and reduce violent incidents:*

De-escalation trainings have proven to be quite beneficial in resolving situations with dogs without resorting to lethal force.<sup>8</sup> Several States including Colorado, Illinois, Ohio, California, Texas, Nevada, and Georgia mandate training and have created programs on proper responses to encounters with dogs. These policies appear to be having a positive impact—between 2015 when the law was enacted and 2019, the number of dogs shot by police in Texas dropped from 281 to 31.<sup>9</sup> Other States including Connecticut, Louisiana, New Jersey, and Oregon address law enforcement encounters with dogs either in basic training or through electives. The COPS office, which provides training for police departments on a variety of topics, published *The Problem of Dog-Related Incidents and Encounters* in 2011, which served as the foundation for a jointly created video series and toolkit in 2020 that provides training on methods for responding to dog encounters, including assessing dog behavior and risk levels, strategies for diffusing threatening encounters, as well as defense and escape tactics.<sup>10</sup> The evidence is compelling that funding for the use of such trainings or creating incentives to do so could minimize risk to officers, families, and animals.

*The ASPCA requests that the subcommittee recognize the impact of law enforcement's use of force in communities and the need to avoid such incidents by including the following report language in its FY23 Appropriations bill:*

*Police Use of Force Against Pets.*—Police shootings directed at pets can account for a significant percentage of overall firearms discharges in communities—data from some localities suggests that anywhere from 25–75 percent of all law enforcement firearms discharges are directed at dogs, and that these incidents are geographically clustered in low-income communities of color where police shootings involving people are also concentrated. These occurrences escalate encounters with communities and erode trust in law enforcement.

The committee continues to be concerned about the lack of data and reporting requirements for police use of force incidents against pets and directs the Department to incorporate data on these incidents into broader efforts to collect, track, and report on police use-of-force and to provide guidance to law enforcement agencies regarding best practices in tracking and reporting data on these incidences.

The Department shall develop a grant program to support Law Enforcement Dog Encounters Training (LEDET) or other evidenced-based training programs for law enforcement to handle encounters with pets. The grants shall be made available to law enforcement agencies and other qualified entities, including nonprofit organizations and institutions of higher education.

<sup>6</sup>See “What is Collected?” <https://crime-data-explorer.app.cloud.gov/officers/national/united-states/uof>.

<sup>7</sup>Bathurst, Cynthia, Donald Cleary, Karen Delise, Ledy VanKavage, and Patricia Rushing. 2015. *The Problem of Dog-Related Incidents and Encounters*. Washington, DC: Office of Community Oriented Policing Services; <https://cops.usdoj.gov/RIC/Publications/cops-p206-pub.pdf>.

<sup>8</sup>Amendola, Karen, Valdovinos, Maria, Perea, Cesar. 2019. *An Evidence-Based Approach to Dog Shootings in Routine Police Encounters: Regulations, Policies, Practices, and Training Implications*. <https://www.policefoundation.org/publication/reducing-dog-shootings-in-routine-police-encounters-regulations-policies-practices-and-training-implications/>.

<sup>9</sup>Texas Humane Legislative Network.

<sup>10</sup><https://www.sheriffs.org/ledet>.

Thank you for your consideration of this request, we look forward to working with you on this important issue.

[This statement was submitted by Nancy Perry, Senior Vice President, Government Relations]

---

PREPARED STATEMENT OF THE AMERICAN SOCIETY OF AGRONOMY (ASA)

Dear Chairwoman Shaheen and Ranking Member Moran:

The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) represent more than 8,000 scientists and students, 13,500 Certified Crop Advisers (CCA), and more than 700 Certified Professional Soil Scientist (CPSS). We are the largest coalition of scientists and professionals dedicated to the agronomic, crop, and soil science disciplines in the United States.

In the coming decades, our agricultural system must sustainably produce food and fuel for a rapidly growing global population. The Nation's economic prosperity and security depend on our dedication to developing innovative, science-based solutions to address the challenges facing our food system. We appreciate the appropriations the National Science Foundation (NSF) received in (FY) 2022. Yet, as our Nation's producers face increasing extreme weather, limited resources, and market uncertainty, NSF's programs become even more important providers of the science they need to stay in business. NSF's Big Ideas initiatives, its core programs, and its unparalleled support for STEM students and the future STEM workforce require increased investment.

We support \$11 billion for the National Science Foundation for the fiscal year 2023. This funding level will put the premier government-funding agency for scientific research on track to address farmers' challenges by increasing the broad knowledge base supported by a wide range of scientific disciplines, such as biology, plant science, chemistry and soil science.

Within NSF we are very supportive of Signals in the Soil program. As Franklin D. Roosevelt stated in 1935, "A nation that destroys its soils destroys itself," and yet our soils are eroding at an alarming rate. This interdisciplinary program is a collaboration among four NSF Directorates, the U.S. Department of Agriculture's National Institute of Food and Agriculture, and five international science organizations to encourage convergent research and high-impact projects that advance a more comprehensive understanding of soil and the systems soils support.

In 2017, NSF launched its 10 "Big Ideas," a set of cutting-edge research agendas and processes poised to drive NSF's long-term research agenda. We are particularly supportive of NSF's Convergence Accelerator and Understanding the Rules of Life Initiatives. The Convergence Accelerator puts systems thinking into research practice. Agriculture researchers are uniquely aware of the multiple disciplines, technologies, and expertise necessary to produce realistic and useful information for producers working in large, multi-faceted outdoor systems. From water management to precision agriculture, this program provides support for exactly the kind of systems-level research successful agriculture requires. The Understanding the Rules of Life Initiative aims to address one of the biggest gaps in biological knowledge: our inability to predict an organism's observable characteristics—its phenotype—from what we know about its genetics and environment. This cross-disciplinary research could help create food crops with higher yields or nutritional content and new models for environmental remediation.

ASA, CSSA, SSSA have made the commitment to enhancing the experiences, opportunities, and safety of all Society members by creating a diverse, inclusive, and equitable environment in our scientific fields of study. NSF can play an invaluable role in addressing the equity challenges facing minority and underrepresented groups within the research workforce. We know that students and researchers from disadvantaged backgrounds are less likely to choose a field with unreliable funding. Robust federal funding for NSF can advance a more representative and equitable research enterprise by bolstering the student pipeline, expanding educational programs and grants—especially for MSIs, expanding resources for early career researchers, and facilitating collaborations with diverse stakeholders to address existential threats, such as climate change.

Science is essential. A strong commitment to federally funded scientific research will boost the Nation's capacity for innovation, productivity, and economic prosperity.

Thank you for your consideration. For additional information or to learn more about ASA, CSSA, and SSSA, please contact Rachel Owen at rowen@sciencesocieties.org or 608-268-4965.

Sincerely,  
Luther Smith, Interim CEO

---

PREPARED STATEMENT OF AMERICAN SOCIETY OF PLANT BIOLOGISTS

On behalf of the American Society of Plant Biologists (ASPB), I submit this testimony for the official record to support \$11 billion for the National Science Foundation (NSF) for (FY) 2023. ASPB recognizes the difficult fiscal environment our Nation faces, but we believe that sustained investments in scientific research are a critical step toward economic recovery and continued global competitive innovation for our Nation. ASPB would also like to thank the subcommittee for its consideration of this testimony and for its strong support for the research missions of NSF.

ASPB, founded in 1924 as the American Society of Plant Physiologists, was established to promote the growth and development of plant biology, to encourage and publish research in plant biology, and to promote the interests and professional advancement of plant scientists in general. ASPB members educate, mentor, advise, and nurture future generations of plant biologists; they work to increase understanding of plant biology, as well as science in general, in K-16 schools and among the general public; they advocate in support of plant biology research; they work to convey the relevance and importance of plant biology; and they provide expertise in policy decisions world-wide. Overall, ASPB members, as representatives of the society, work to disseminate information and excitement about plant sciences, especially through ASPB's advocacy, outreach activities, conferences, and publications.

FOOD, FUEL, ENVIRONMENT, AND HEALTH: PLANT BIOLOGY  
RESEARCH AND AMERICA'S FUTURE

Plants are vital to our very existence. They harvest sunlight, converting it to chemical energy for food and feed; they absorb carbon dioxide and produce oxygen; and they are the primary producers on which most life depends. Indeed, plant biology research is making many fundamental contributions in the areas of energy security and environmental stewardship; the continued and sustainable development of better foods, fabrics, and building materials; and in the understanding of biological principles that underpin the health and nutrition of all Americans. In short, plant biology research is at the foundation of a robust American bioeconomy.

Plant science has become the backbone of agricultural innovation, and a thriving agricultural sector is a cornerstone for America's economic success. Agriculture and related industries comprise 6 percent of the U.S. GDP, contributing nearly \$1.055 trillion and 19.7 million jobs to the economy.<sup>1</sup> In fact, despite persistent U.S. trade deficits, there has been a surplus in agricultural trade since 1960. Steady increases in yield have made these surpluses possible, even in the face of sustained population growth. Such increases are due to improvements in crop seeds and agricultural innovations that, in turn, rely on sustained fundamental and applied research in crop science and plant biology. American farmers have experienced and come to expect continuously increasing yields, which are necessary for economic and national security. But for this to continue, growing investments in basic biological sciences are needed.

Plant biology is at the interface of numerous scientific breakthroughs. For example, NSF has supported high throughput experimental approaches that facilitate extraordinary syntheses of information, and plant biologists are using computer science and bioinformatics to make tremendous strides in our understanding of complex biological systems, ranging from single cells to entire ecosystems. Ultimately, understanding how plants function will enable biotechnological approaches toward more nutritious and productive crops, new sources of fuel, and the development of novel medicines to treat diseases like cancer.

Despite the significant positive impact plants have on our Nation's economy and in addressing some of our most urgent challenges, including food and energy security, Federal investments in fundamental plant biology research are modest. Still, scientists have maximized and leveraged this funding to understand the basic functions and mechanisms of plants, providing a foundation for vital advances in practical applications in agriculture, health, energy, and the environment.

---

<sup>1</sup> <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/ag-and-food-sectors-and-the-economy/>.

## ROBUST FUNDING FOR THE NATIONAL SCIENCE FOUNDATION

*ASPB supports the new Directorate for Technology, Innovation, and Partnerships (TIP) and its goal to advance science and engineering research and innovation.* This new directorate will accelerate basic research to solve national and societal problems. TIP will support use-inspired research in biotechnology, among other areas, and propel NSF-funded discoveries to new levels of innovation. TIP will also fund activities in priority areas such as climate resilience and energy sufficiency, advanced wireless research, biotechnology, microelectronics and semiconductors, advanced manufacturing, AI, and quantum sciences. Programs that broaden participation would also see major growth, and NSF would launch a new initiative aimed at building research capacity at emerging research institutions.

*ASPB encourages strong support for the Directorate of Biological Sciences (BIO) and proportional funding increases across all of the scientific disciplines NSF supports.* As scientific research becomes increasingly interdisciplinary, a diverse research portfolio at NSF is needed to maintain transformational research and innovation. NSF funding for plant biology specifically enables the scientific community to address cross-cutting research questions that could ultimately solve grand challenges related to a sustainable food supply, energy security, and improved health and nutrition.

NSF BIO is a critical source of funding for scientific research, providing the majority of the Federal support for non-medical, basic life sciences research at U.S. academic institutions and beyond. BIO supports research ranging from the molecular to the biosphere levels. These investments have significant payoffs, both in terms of the knowledge directly generated and in deepening collaborations and fostering innovation among communities of scientists.

BIO's Plant Genome Research Program (PGRP) is an excellent example of a high impact program that has laid a strong scientific research foundation for understanding plant genomics as it relates to energy (biofuels), health (nutrition and functional foods), agriculture (impact of changing climates on agronomic ecosystems), and the environment (plants' roles as primary producers in ecosystems). ASPB asks that the PGRP be funded at the highest possible level and have sustained funding growth to address 21st century challenges.

Additionally, ASPB is encouraged by the ongoing efforts of the Reintegrating Biology initiative. The Society hopes that these efforts will result in innovative, cross-disciplinary efforts that advance both plant science and biological research.

Without significant and increased support for BIO and NSF, promising fundamental research discoveries will be delayed and vital collaborations at the leading edges of scientific disciplines will be postponed, thus limiting the ability to respond to the pressing scientific problems that exist today and the new challenges on the horizon. Addressing these scientific priorities also helps improve the competitive position of the U.S. in a global marketplace.

## CONTINUED SUPPORT FOR NSF EDUCATION AND WORKFORCE DEVELOPMENT PROGRAMS

As discussed above, among the challenges brought by a changing world, many will be addressed specifically by plant scientists. Sustained increases in crop productivity will be needed to match the demand for food expected from population growth. At the same time, climate change will present new challenges for crops and other plant ecosystems. These challenges will require efforts to increase productivity beyond current practices, including, for example, improvement in crop water use efficiency and enhanced crop photosynthesis efficiency and performance. More knowledge and innovation will be needed to replace chemicals from non-renewable sources (from fuels to biomedical applications) with plant-derived metabolites. These innovations will require contributions from basic and applied plant science fields, as well as collaboration with other sciences and engineering.

To tackle these challenges, a strong and diverse community of plant scientists, with increased involvement from women and minority scientists who often bring underrepresented perspectives, will be needed. However, the current training pipeline does not appear prepared to ensure the availability of this workforce. The number of PhD degrees awarded in the U.S. in biomedical sciences in the last two decades has increased at an unsustainable rate, even triggering warnings from members of the National Academy of Sciences;<sup>2</sup> however, this trend has not been paralleled by increases in plant-related PhD degrees. In fact, plant science doctoral degrees, both basic and agronomy-related, have remained stagnant during this pe-

<sup>2</sup>National Academies of Sciences, Engineering, and Medicine. 2018. The Next Generation of Biomedical and Behavioral Sciences Researchers: Breaking Through. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25008>.

riod.<sup>3</sup> Students gravitate towards fields with reliable and robust career and earning opportunities. What is necessary to change these trends is a strong investment in plant science research, basic and applied, renewed efforts to transform public perception of plant biology and plant biologists, and a push to increase the number of students in the plant science pipeline. Developing the workforce that will solve current and future challenges is urgent.

The NSF is a major source of funding for the education and training of the American scientific workforce and for understanding how educational innovations can be most effectively implemented. NSF's education portfolio impacts students at all levels, including K–12, undergraduate, graduate, and postgraduate, as well as the public.

*ASPB urges the subcommittee to support expanding NSF's fellowship and career development programs such as the Postdoctoral Research Fellowships in Biology, the Graduate Research Fellowship (GRF), the Research and Mentoring for Postbaccalaureates in Biological Sciences (RaMP), and the Faculty Early Career Development (CAREER) programs—thereby providing continuity in funding opportunities for the country's most promising early career scientists.*

ASPB urges support for NSF to further develop programs aimed at increasing the diversity of the scientific workforce by leveraging professional scientific societies' commitment to provide a professional home for scientists throughout their education and careers and to help promote and sustain broad participation in the sciences. Focused training and infrastructure support programs for Hispanic Serving Institutions, Historically Black Colleges and Universities, and Tribal Colleges and Universities remain vitally important, because they foster a scientific workforce that reflects the U.S. population.

ASPB also urges support for research that enhances our understanding of how educational innovations can be sustainably and effectively implemented. NSF Education and Human Resources (EHR) programs provide opportunities to expand NSF's research and evaluation efforts to address scale-up and sustainability. *ASPB encourages continued support for education research programs within NSF's EHR portfolio with a focus on understanding how previous investments in educational strategies can be made most effective.*

Grand research challenges will not be solved in a year, an administration, or a generation. It takes attention and investment at Federal research agencies, such as the NSF, over decades.

Thank you for your consideration of ASPB's testimony. For more information about ASPB, please visit at [www.aspb.org](http://www.aspb.org).

[This statement was submitted by Crispin Taylor, PhD, Chief Executive Officer]

#### PREPARED STATEMENT OF ASSOCIATION FOR PSYCHOLOGICAL SCIENCE

##### APS RECOMMENDATIONS FOR FISCAL YEAR 2023 APPROPRIATIONS

- The Association for Psychological Science (APS) supports (FY) 2023 funding of at least \$11 billion for the National Science Foundation (NSF).* The NSF is critical to ensuring the success of the Nation's science, technology, engineering, and mathematics (STEM) enterprise and to promoting national security and prosperity.
- APS recommends increased funding for NSF's Social, Behavioral, and Economic (SBE) Sciences Directorate.* This NSF directorate is the primary funder of behavioral research conducted at U.S. colleges and universities. SBE-funded research provides the foundation upon which our knowledge of people, including our understanding of the human mind, brain, and behavior, is built.
- APS requests Congress encourage NSF to increase the number of Graduate Research Fellowships to 3,000 in FY 2023.* This program provides essential support that empowers students to pursue graduate education and training in STEM fields.

##### STATEMENT OF APS CHIEF EXECUTIVE OFFICER

Chair Shaheen, Ranking Member Moran, and Members of the subcommittee, thank you for the opportunity to provide testimony about psychological science priorities and interests at NSF in FY 2023. I am Robert Gropp, PhD, Chief Executive Officer of APS, which is a nonprofit scientific organization of approximately 25,000

<sup>3</sup>National Center for Science and Engineering Statistics, Survey of Earned Doctorates. <https://ncesdata.nsf.gov/builder/sed?type=chart&convert=1>.

scientists and students dedicated to advancing research psychology for the benefit of science and society. Many of these members are scientists and educators at the Nation's universities and colleges who conduct research and train undergraduate and graduate students with support from NSF.

#### FUNDING FOR THE NATIONAL SCIENCE FOUNDATION AND POLICY ISSUES

APS joins with the Coalition for National Science Funding to request that Congress provide at least \$11 billion in FY 2023 funding for NSF. NSF-funded research and training programs are engines that power the discovery and innovation that grow our economy, promote national security, and enhance human well-being.

NSF-funded research and education benefit every State and local community across the United States. In 2021, for example, New Hampshire research institutions secured more than \$33 million in research and education support from NSF, and institutions across Kansas received \$40 million. NSF is helping institutions in both States address the COVID-19 pandemic and other issues through funding, for example, the development of behavioral theories about resilience and sustainability for use by engineers (University of New Hampshire) and the study of how debt and economic insecurity developed during the pandemic and how these factors affect low-income communities (Dartmouth College). Other NSF-supported research examined challenges faced by individuals using public libraries for computing and Internet access amid the COVID-19 pandemic (University of Kansas) and how scientific goals and values can support responsible research conduct (Kansas State University).

Specifically, APS urges increased funding for NSF behavioral and social sciences and economics programs. The SBE directorate funds research on critical areas such as understanding human interactions with artificial intelligence and developing a secure and trustworthy cyberspace. The SBE directorate also works with other NSF directorates on major NSF projects such as the Future of Work and Human-Technology Frontier, Growing Convergence Research, and Harnessing the Data Revolution, ensuring that social and behavioral science research is contributing to our understanding and advancing these research areas critical to the future of science and engineering.

APS encourages Congress to provide sufficient funding to NSF to empower the agency to allocate increased funding for SBE. For this purpose, APS requests that Congress adopt the following report language:

*Directorate for Social, Behavioral, and Economic Sciences (SBE).*—The Committee supports the SBE directorate and recognizes the fundamental importance of the research it supports in advancing scientific understanding of critical challenges facing our Nation. These sciences also afford insights into advancing public health, defense and security, education and learning, and the interface between humans and technology. The SBE directorate funds more than half of our Nation's university-based behavioral science research, yet it is the smallest NSF directorate. The Committee believes that behavioral science provides evidence-based understanding of human behavior and recognizes the SBE directorate's unique role in funding this research. The Committee therefore recommends an increase over the Fiscal Year 2022 levels for SBE activities comparable to the increases provided for the other directorates.

NSF facilitates a wide variety of research conducted at colleges and universities across the United States. The agency also empowers the next generation of scientists to begin and continue their training and education in science. The Graduate Research Fellowship Program, or GRFP, is one such example of this work. Historically, NSF has awarded around 2,100 of these fellowships per year, but it receives applications from many more qualified students than it can support. For this reason, APS encourages Congress to provide NSF with funding to support at least 3,000 GRFP awards annually.

APS requests that the following language be included in the fiscal Year 2023 CJS Report:

*Graduate Research Fellowship Program.*—The Committee notes that the Graduate Research Fellowship Program (GRFP) has a long history of supporting outstanding graduate students studying NSF-supported sciences, engineering, and mathematics fields, including behavioral science, and selects recipients who go on to achieve high levels of success in their future academic and professional careers. In recognition of this program's contributions to launching the careers of talented future scientists, the Committee has provided the resources necessary to fund more than 3,000 grants in Fiscal Year 2023 and urges the program to continue to grow in future years.

## SUMMARY AND CONCLUSION

Knowledge gained from NSF-funded psychological science research is essential to advancing innovation and discovery, improving the Nation's health and prosperity, and strengthening economic and national security. The importance of this research has been on display during the COVID pandemic. As an illustration of what investment in SBE sciences can do, I direct you to the APS Global Collaboration on COVID-19. This initiative has brought together psychological scientists and other experts to make recommendations on how we can draw on our field for the good of the country. This collaboration has identified that psychological and other behavioral sciences could have been better applied throughout the COVID-19 crisis, that these fields can contribute to COVID-19 and future threats, and that new research and research funding are urgently needed to best prepare society for future crises. I would be pleased to share further information on this effort with any interested Members of the subcommittee at your convenience.

APS shares your commitment to fostering innovation through investment in research. We appreciate the opportunity to provide this testimony, and we thank you for your leadership.

[This statement was submitted by Robert Gropp, PhD, Chief Executive Officer]

---

PREPARED STATEMENT OF ASSOCIATION OF SCIENCE AND TECHNOLOGY CENTERS, AMERICAN ALLIANCE OF MUSEUMS, ASSOCIATION OF CHILDREN'S MUSEUMS, AND ASSOCIATION OF SCIENCE MUSEUM DIRECTORS

Dear Chair Shaheen, Ranking Member Moran, and Members of the subcommittee:

Thank you for accepting this statement submitted by the Association of Science and Technology Centers (ASTC), the American Alliance of Museums (AAM), the Association of Children's Museums (ACM), and the Association of Science Museum Directors (ASMD).

We appreciate the opportunity to present the views of our associations to the subcommittee for its consideration as it prepares to write the Fiscal Year 2023 Commerce, Justice, Science, and Related Agencies Appropriations bill, particularly regarding the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA), and the National Oceanic and Atmospheric Administration (NOAA).

Our associations represent more than 5,000 member organizations in every State and district in America, including science centers, museums of all types, nature centers, aquariums, zoos, planetariums, botanical gardens, and natural history and children's museums, as well as companies, consultants, and other organizations that share an interest in science education and public engagement in science.

Taken together, our National reach is a vital resource for fostering rich public engagement in the importance of science and many other subjects and disciplines towards building a bright future and opportunity for all. Our place-based organizations are leading institutions in the efforts to promote education in science, technology, engineering, arts, and mathematics (STEAM), developing rich, innovative, and effective science-learning experiences. We are helping to create the future STEAM workforce and inspiring people of all ages about the wonders and the meaning of science in their lives. Our members are trusted and valued by their communities—a recent national public opinion poll, showed that 95% of voters would approve of lawmakers who acted to support museums and 96% of voters want Federal funding for museums to be maintained or increased (Museums and Public Opinion, S. Wilkening and AAM, 2018).

These past 2 years have been especially challenging for our community as nearly all of our members, many of whom receive the majority of their operating income from revenue from people coming through their doors, experienced prolonged closure of their facilities. Even as they have reopened to the public, attendance and revenue may take several years to recover. While Federal relief programs have provided an essential lifeline, the impact on our members will long outlast COVID relief (National Snapshot of COVID-19 Impact on United States Museums, AAM and Wilkening Consulting, 2021). At the same time, our member institutions continued to serve their communities and their missions, engaging their regions with STEM and youth engagement, supporting science learning and serving their communities in myriad other ways. Indeed, one of the most inspiring aspects of the past 2 years is how our member organizations have shown up for their communities and worked closely with local residents and organizations to advance conversation and action on the most urgent local priorities.

For example, a year ago ASTC, AAM, and ACM joined with a coalition of other national organizations to launch Communities for Immunity ([www.communitiesforimmunity.org](http://www.communitiesforimmunity.org)), an initiative supported by the Centers for Disease Control and Prevention and the Institute of Museum and Library Services to activate museums, libraries, and Tribal organizations to boost vaccine confidence in their communities. Building upon the high degree of trust that the public has in these cultural institutions, Communities for Immunity has been able to effectively engage vaccine hesitant members of their local communities.

As the Nation hopefully emerges from the immediacy of the pandemic, this example of action by the museum and library community demonstrates how these trusted institutions embedded in their communities offer an opportunity to advance community conversation and action on national and international challenges in locally relevant ways.

#### REQUESTS FOR FISCAL YEAR 2023 APPROPRIATIONS

We appreciate the support that the subcommittee has provided for the Nation's science and education agencies, including support for programs of particular interest to ASTC, AAM, ACM, and ASMD.

In general, we stress the need for inclusive programs that include support for informal education as much STEAM learning-including but not limited to school-aged youth-happens outside of formal schooling. Research has consistently shown that learning experiences outside of the formal classroom are vitally important to youth's future interest and capacity in STEAM (National Academies, 2006, 2009, 2010, 2015, 2016).

#### *National Science Foundation (NSF)*

The National Science Foundation (NSF) is one of our Nation's most important sources of support for STEM education, including many of the programs centered in the Directorate for Education and Human Resources (EHR). EHR supports STEAM education at all levels and for all audiences to help develop a diverse and well-prepared workforce and a scientifically well-informed citizenry.

Of particular interest to the museum community is the Advancing Informal STEM Learning (AISL) program in the Division of Research on Learning in Formal and Informal Settings, which advances new approaches to and evidence-based understanding of learning in informal environments. However, current funding levels have limited the ability of the program to support the range of informal STEM education programs that have been ranked highly competitive. We ask you to provide at least \$74.5 million for the Advancing Informal STEM Learning (AISL) program.

NSF also supports STEAM education and informal learning through its research directorates, and we urge the subcommittee to provide increased funding for the NSF Directorates for Biological Sciences; Education and Human Resources; Geosciences; and Social, Behavioral and Economic Sciences to continue to support museum research, collections, and programs that are key to lifelong STEAM education. We also support the focus on the intersection of science and society in NSF's new Directorate for Technology, Innovation, and Partnerships.

Finally, we support continued analysis and refinement of the broader impacts criterion on which all NSF proposals are evaluated, including efforts to enhance training for merit review panelists and NSF program officers-and the development of tools for evaluating and documenting the societal impacts of research.

#### *National Aeronautics and Space Administration (NASA)*

The National Aeronautics and Space Administration (NASA) supports informal STEM education in a variety of ways. The Teams Engaging Affiliate Museums and Informal Institutions (TEAM II) program, within the Office of STEM Engagement, provides support for museums and planetariums to enhance programs related to space exploration, aeronautics, space and earth science, or microgravity.

We request at least \$130 million for NASA's Office of STEM Engagement, including at least \$15 million for the Teams Engaging Affiliate Museums and Informal Institutions (TEAM II) program.

In addition, NASA's Science Mission Directorate supports museums and museum networks through its Science Activation program, which connects competitively-selected teams across the country with NASA infrastructure teams. Last year, more than 50 teams supported by the program engaged more than 21 million learner interactions in all 50 States. To continue the program's evolution and strong reach nationwide, we request at least \$47 million for the SciAct Program.



*National Oceanic and Atmospheric Administration (NOAA)*

NOAA's Office of Education offers two grant programs to advance education in areas relevant to NOAA's mission, including support for museums, zoos, aquariums, and science centers. These programs help enhance the understanding and use of environmental information to promote informed decision-making by educators, students, and the public.

- The Bay Watershed Education and Training (B-WET) program promotes place-based experiential learning for K–12 students and related professional development for educators.
- Environmental Literacy grants support activities that inspire people to use Earth system science to improve ecosystem stewardship and increase resilience to environmental hazards. For more than 15 years, these grants have supported museum exhibitions, K–12 curricula, online education resources, citizen science activities, out-of-school programs, and professional development for educators.

As the need for enhanced education about our changing climate and community resilience increases, there is a need for a concurrent increase in the budget for the Office of Education. We request at least \$35 million for NOAA's Office of Education.

We continue to thank the subcommittee for all its support of a robust science and education budget. You have demonstrated your support for crucial programs that promote STEAM education for our Nation's students. Like our organizations, you recognize these are vital investments in our future, and we thank you in advance for taking action accordingly.

Our organizations stand ready to be of service to your work. We are always happy to provide examples of the ways that museums are contributing to their communities and helping to advance local, regional, and national priorities. With our networks of hundreds of community-based institutions, these examples can be in or near each Congressional district.

Founded in 1973, the Association of Science and Technology Centers (ASTC) is a network of nearly 700 science and technology centers and museums, and allied organizations, engaging more than 110 million people annually across North America and in almost 50 countries. With its members and partners, ASTC works towards a vision of increased understanding of and engagement with science and technology among all people. [www.astc.org](http://www.astc.org).

The American Alliance of Museums (AAM) has been bringing museums together since 1906, helping to develop standards and best practices, gathering and sharing knowledge, and providing advocacy on issues of concern to the entire museum community. Representing more than 35,000 individual museum professionals and volunteers, institutions, and corporate partners serving the museum field, the Alliance stands for the broad scope of the museum community. [www.aam-us.org](http://www.aam-us.org).

The Association of Children's Museums (ACM) champions children's museums worldwide. With more than 460 members in 50 States and 19 countries, ACM leverages the collective knowledge of children's museums through convening, sharing, and dissemination. [www.childrensmuseums.org](http://www.childrensmuseums.org).

The Association of Science Museum Directors (ASMD) is a non-profit, professional association of natural history and other science museum directors. Our community of museum leaders gathers to share experiences and discuss issues related to the advancement of our respective organizations to benefit society and the planet. [www.asmd-us.org](http://www.asmd-us.org).

[This statement was submitted by Christofer Nelson, President and CEO Association of Science and Technology Centers; Laura Lott, President and CEO, American Alliance of Museums; Arthur G. Affleck, III, Executive Director, Association of Children's Museums; and Bonnie Styles, Executive Director, Association of Science Museum Directors]

---

PREPARED STATEMENT OF BOARD MEMBER OF YOUTH ADVOCATE PROGRAMS, INC.

Chairman Cartwright, Ranking Member Aderholt, and members of the subcommittee, my name is Judge Thomas Foster, and I am a retired Kansas District judge, a current member of the National Council of Juvenile and Family Court Judges, and a board member of Youth Advocates Program. I am pleased to submit testimony on behalf of a coalition of organizations, co-led by the Youth First Initiative and Columbia Justice Lab's Youth Corrections Leaders for Justice. These organizations work to assist States in building on the past two decades of successful youth justice system accountability, reform, and improvement through expanding access to more effective and cost-efficient community-based alternatives for youth. Federal investments play a key role in juvenile justice efforts to protect youth, pre-

vent delinquency, and promote safe communities. To accomplish these goals, we seek \$100 million for a new initiative in the Department of Justice's (DOJ) Office of Juvenile Justice and Delinquency Prevention (OJJDP) that would support grants to States to implement a robust planning process to (1) close failed and ineffective youth prisons, (2) expand access to more effective and cost-efficient community-based alternatives, and (3) address economic concerns, such as the re-employment of facility workers and the economic impact of facility closures on communities. I want to thank the subcommittee for its past funding of Federal juvenile justice programs and urge it to support this new initiative at OJJDP to support States in moving from costly and ineffective incarceration to more effective community-based alternatives that produce dramatically better outcomes for youth, their families, and communities.

For more than four decades, YAP has supported youth and families involved in the youth justice and child welfare systems as well as adults in the criminal legal system. YAP has provided individuals and their communities with proven, effective, and economical community-based alternatives to institutional placement. YAP promotes expanding access to these resources for families and communities as an effective way to improve youth and family outcomes and community safety. YAP now serves youth and families in Kansas and 32 other States and Washington DC.

In 2014, the Kansas legislature funded a bipartisan comprehensive review of the Kansas juvenile justice system. I was honored to have been appointed by our Supreme Court Chief Justice to serve on this committee. The committee collected information and invited national experts to present data and information related to juvenile justice and best practices. Dr. Edward Mulvey, University of Pittsburgh, and Dr. Mark Lipsey, Vanderbilt University, travelled to Kansas to meet with us and make presentations which are available for review at the KDOC website.<sup>1</sup>

As a result of this process many modifications were implemented. The most significant modification was the limitation on the use of juvenile prison and elimination of the group home system in Kansas. The Committee was convinced that these out of home placements just did not work as Kansas was spending over \$45,000 per year per child on an ineffective placement. The committee came to the conclusion that the out of home placement system could not be improved or salvaged and that it would be better to close them down and redirect the money to community-based programs that have been shown to work, such as intensive mentoring, family therapy, mental health services, parenting education, and substance use treatment. While Kansas closed its facilities, we still needed to identify and redirect funding to more effective community-based programs. YAP was one of the first programs brought to Kansas to address the need for community-based and in home services. Federal resources are needed now to galvanize and support Kansas' statewide effort to plan and implement its juvenile justice system transformation that will result in a better outcome for young people, increased system accountability, and safer communities.

Research shows that community-based alternatives perform far better than the youth prison model; racial and ethnic disparities and abuse of children, including at facilities nationwide, continue to plague the youth carceral system; and youth prisons are extremely expensive. Given these limitations, experts and youth justice leaders—including youth correctional administrators, judges, prosecutors, and youth advocates—recommend the closure of failed youth prisons in favor of more effective community-based alternatives. However, there are many youth prisons still operating and taking up significant and precious state resources that could be used to expand access to more effective alternatives.

There are a range of proven and effective alternatives to youth incarceration to support. Community mentoring programs that link young people to trusted adults show strong results. In Harrisburg, Pennsylvania, Youth Advocates Program found that 97% of program participants were not convicted or adjudicated of a new offense while in the program, 85% were living safely in the community at discharge, and 76% were regularly attending school, had graduated, or attained their GED at discharge. The NYC Mayor's Office and Urban Institute found that Credible Messengers' mentoring programs for youth on probation significantly reduced recidivism for young adults on probation by 69% after 12 months. At the 24-month mark, it was still 57% lower. These results show that evidence-based alternatives delivered in the community significantly reduce recidivism. YAP just completed a 2-year project in 15 jurisdictions across the Nation where it invested private foundation funds in the local juvenile justice systems to support expanded access to effective alternatives to youth incarceration. 80% of the highest risk youth served were diverted from youth prisons, and at the end of the project jurisdictions decided to sus-

<sup>1</sup> <https://www.doc.ks.gov/juvenile-services/Workgroup/Presentations/Lipsey>.

tain these programs with their own funds because they found the alternatives to incarceration to be more effective.

Incarceration contributes to racial disparities and poor long-term outcomes for youth. Racial inequities in incarceration are pervasive—Black youth are 5 times more likely and Latinx youth 3 times more likely than their white peers to be incarcerated for similar offenses. Excluding Indian Country, American Indians make up 3% of girls and 1.5% of boys in juvenile facilities but less than 1% of youth nationally. Long term outcomes for incarcerated youth include lower educational attainment and employment; high rates of homelessness; behavioral and emotional problems; poor physical health; and problems in forming stable family relationships. Physical and sexual assault and extended solitary confinement also are common. Incarceration also increases recidivism by disconnecting youth from their families, religious and spiritual connections, schools, and other pro-social experiences. As a result, incarcerated youth are more likely to have entered adult prison by age 25.

Closing youth prisons both saves money and increases public safety. The cost of youth incarceration is astronomically high, especially considering these poor outcomes. According to one recent study, the average cost of the most expensive confinement option for a young person in 48 States was \$588 per day, or \$214,620 per year—almost 15 times more than the U.S. spends per pupil for 1 year of K–12 public education. A Washington State Study showed that youth detention produced fewer benefits in reduced crime and other outcomes than many less costly programs. Spending \$1 for diversion and mentoring programs resulted in \$3.36 in benefits of reduced crime, while multisystemic therapy, a more service intensive alternative, produced \$13.36 in benefits.

Such community-based alternatives, including mentoring programs, evidence-based therapies, and small, rehabilitative and home-like facilities for the very few young people who commit serious crimes cost much less than prison and are safer for youth and staff. New York City's investment in small, homelike facilities resulted in a 53% drop in youth arrests and a 68% reduction in youth placement. Texas decreased youth incarceration by 38% and further decreased youth arrests by 49%. After California's closure of youth prisons in 2016, youth arrests for violent crimes in the state fell to less than half what they were in 1990. These States have demonstrated that closing failed youth prisons and diverting kids to community-based alternatives both save money and increase public safety.

Americans nationwide support Federal funding to incentivize States to close failed youth prisons to capture resources to reinvest in more effective and cost-efficient community-based alternatives. In a 2021 Youth First Initiative poll, 78 percent of adults endorsed the proposal to provide Federal funds to support State planning and consultation with stakeholders to close youth prisons and invest savings to expand access to community-based alternatives and provide workforce development services to workers from closed facilities. Additionally, residents polled in Pennsylvania and Virginia showed that 81 percent of Pennsylvanians and 85 percent of Virginians support a youth justice system that focuses on prevention and rehabilitation. In both States, more than 80 percent of respondents support providing financial incentives for States to invest in alternatives to youth incarceration.

At a time when our Nation is debating how to reduce the negative impacts of the justice system while increasing public safety, I urge you to fully fund in FY23 the new \$100 million initiative at OJJDP because it would accomplish the key goals of improving outcomes, addressing racial disparities, reducing long-term costs, and ensuring public safety.

Thank you so much for your time and consideration of these important issues. Please do not hesitate to contact me at [thomas.foster27@gmail.com](mailto:thomas.foster27@gmail.com) or Jenny Collier at [jcollier@colliercollective.org](mailto:jcollier@colliercollective.org) if you have any questions or need additional information.

---

#### PREPARED STATEMENT OF COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

The Columbia River Inter-Tribal Fish Commission (CRITFC) is pleased to share our views on the Department of Commerce's FY 2023 budget and has identified the following funding needs:

1. \$70.5 million for Salmon Management Activities of which:
  - \$26.5 million supports Mitchell Act Programs to implement reforms called for in the "Conservation of Columbia Basin Fish" and the Federal Columbia River Power System (FCRPS) Biological Opinion, of which \$6.7 million (or 25 percent of the enacted amount) is directed to the Tribes to enhance natural stock recovery programs.

- \$43.5 million for the Pacific Salmon Treaty, of which \$43.5 million is annual operations for the implementation of the 2019–2028 Agreement.
- 2. \$100 million for the Pacific Coastal Salmon Recovery Fund to support on-the-ground salmon restoration activities.
- 3. \$4 million for Columbia River Pinniped Management to support implementation of the MMPA Section 120(f) permit issued by NOAA–F in 2019.
- 4. \$80.8 million for the Integrated Ocean Observing Systems (IOOS) program to continue the study of estuary and near-shore environment for multiple purposes including the restoration of treaty trust aquatic resources.

#### BACKGROUND

The Columbia River Inter-Tribal Fish Commission (CRITFC) was founded in 1977 by the four Columbia River treaty Tribes: Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tribes and Bands of the Yakama Nation, and the Nez Perce Tribe. CRITFC provides coordination and technical assistance to the Tribes in regional, national, and international efforts to protect and restore the fisheries and fish habitat.

In 1855, the United States entered treaties with the four Tribes<sup>1</sup>. The Tribes' ceded millions of acres of our homelands to the U.S. and the U.S. pledged to honor our ancestral rights, including the right to fish at all usual and accustomed places. Unfortunately, a long history of hydroelectric development, habitat destruction, and over-fishing by non-Indians brought the salmon resource to the edge of extinction with many stocks extirpated and 12 salmon and steelhead trout populations in the Columbia River basin listed under the Endangered Species Act (ESA).

Today, the treaties form the bedrock of the region's fisheries management. The CRITFC Tribes are among the most successful fishery managers in the country leading restoration efforts and working with State, Federal, and private entities. CRITFC's comprehensive plan, *Wy-Kan-Ush-Mi Wa-Kish-Wit*, outlines principles and objectives designed to halt the decline of salmon, lamprey, and sturgeon populations and rebuild the fisheries to levels that support Tribal ceremonial, subsistence, and economic purposes. To achieve these objectives, the plan emphasizes strategies that rely on natural production, healthy rivers, and collaborative efforts.

Several key regional agreements were completed in 2008. The Columbia Basin Fish Accords set out parameters for management of the Federal Columbia River Power System (FCRPS) for fish passage. New agreements in *U.S. v. Oregon* and the Pacific Salmon Commission established fishery management criteria for fisheries ranging from the Columbia River to Southeast Alaska. The *U.S. v. Oregon* agreement also contains provisions for hatchery management in the Columbia River Basin. We have successfully secured other funds to support our efforts to implement these agreements, including funds from the Bonneville Power Administration (BPA), the Department of Interior, and the Southern Fund of the Pacific Salmon Treaty. Continued Federal support is needed to accomplish the management objectives embodied in the agreements.

#### 1. SALMON MANAGEMENT ACTIVITIES: \$70.5 MILLION

*Columbia River (Mitchell Act) Hatchery Program.*—The Mitchell Act program was created in 1938 to mitigate for the impacts caused by the construction and operation of the Bonneville Dam. These production fish fuel West Coast salmon fisheries from the Oregon to Southeast Alaska, and to the interior Columbia River basin worth millions of dollars.

Mitchell Act facilities operation and maintenance (O&M) funding has been static for years and eroded buying power of this account results in reduced numbers of fish produced and reduced fish health which results in fewer fish for harvest. A modest increase of O&M budgets to \$26.7 million would help these facilities produce targeted numbers of fish to benefit Columbia River and West Coast fisheries and assist these Mitchell Act programs to begin integrating modern fisheries management and incorporate the dual needs of fish production and ESA salmon recovery opportunities.

*Pacific Salmon Treaty Program.*—CRITFC supports the U.S. Section recommendation of \$43.5 million for implementation of the revised Pacific Salmon Treaty (Treaty). The Department of Commerce principally funds programs conducted by the States of Washington, Oregon, Idaho and Alaska and the National Marine Fisheries Service (NMFS.) Unfortunately, the cost of programs conducted by the States to ful-

<sup>1</sup>Treaty with the Yakama Tribe, June 6, 1855, 12 Stat. 951; Treaty with the Tribes of Middle Oregon, June 25, 1855, 12 Stat. 963; Treaty with the Umatilla Tribe, June 9, 1855, 12 Stat. 945; Treaty with the Nez Perce Tribe, June 11, 1855, 12 Stat. 9.

fill national commitments created by the Treaty continue to be substantially greater than the funding provided in the NMFS budget. Consequently, the States have supplemented the Federal Treaty appropriations from other sources, including State general funds. Many of those funding sources are limited or no longer available and this has been exacerbated by the ongoing global pandemic.

## 2. PACIFIC COASTAL SALMON RECOVERY FUND: \$100 MILLION

The Pacific Coastal Salmon Recovery Fund (PCSRF) was developed in 2000 by Washington, Oregon, Idaho, Alaska, and the treaty Tribes to fulfill the unmet needs for the conservation and restoration of salmon stocks shared in the Tribal, State, and international fisheries. Since that time, the number of entities eligible for receiving funding has grown.

PCSRF has funded 417 Yakama, Umatilla, Warm Springs, Nez Perce, and CRITFC Tribal salmon recovery projects. These projects have contributed greatly to the Pacific Northwest effort to avoid extinction of Columbia Basin salmon species and their habitat. Accomplishments from CRITFC and our member Tribes include 4,838 stream miles monitored; 417 miles of stream made accessible to salmon; 5,060 acres of riparian area treated; 11,341 acres conserved by acquisition or lease; and 2 million salmon fry/smolt released annually. PCSRF is vital to fulfill the region's goal of full salmon recovery, to provide sustainability of the fishery, and meaningful exercise of the treaty-reserved rights by the Columbia River treaty Tribes.

The co-managers have developed an extensive matrix of performance standards to address accountability and performance standards, which includes the use of monitoring protocols to systematically track current and future projects basin-wide. The PCSRF projects are based on the best science, provide adequate monitoring, and address limiting factors affecting salmon restoration. Projects undertaken by the Tribes are consistent with CRITFC's salmon restoration plan and the programmatic areas identified by Congress.

We recommend a funding level of \$100 million for the PCSRF FY 2023 allocation. Long-term economic benefits can be achieved by making PCSRF investments on-the-ground to rebuild sustainable, harvestable salmon populations into the future.

## 3. COLUMBIA RIVER PINNIPED MANAGEMENT: \$4 MILLION

*Columbia River Section 120 Pinniped Removal Program.*—Since 2002, sea lions in the Columbia River have significantly impacted endangered and threatened stocks of salmon and steelhead. Sea lions also prey on Pacific lamprey and mature sturgeon below Bonneville Dam, and on listed salmon and steelhead runs in the Willamette River and other tributaries to the Columbia River. Thirty-two wild salmon populations bound for the upper Columbia and Snake rivers are vulnerable to predation by sea lions immediately below Bonneville Dam. Other impacted ESA-listed salmon and steelhead populations include lower Columbia River chinook, lower Columbia River steelhead, middle Columbia River steelhead, Snake River Basin steelhead, upper Willamette River chinook, and Upper Willamette River steelhead. All six of these are listed as “threatened” under the ESA.

Despite non-lethal and limited lethal-take measures, the number of salmon and steelhead consumed by sea lions below Bonneville Dam more than doubled between 2006 and 2015, as larger Steller sea lions increased in numbers and began to take a higher toll; management and Federal authorization was initially focused exclusively on California sea lions. To respond to this change, Congress amended the Marine Mammal Protection Act (MMPA) in December 2018 to provide State and Tribal resource managers greater flexibility to manage sea lions. In August 2020, the CRITFC member Tribes, along with Oregon, Idaho, and Washington received a MMPA Section 120(f) permit from the National Marine Fisheries Service to actively manage pinniped populations on the lower Columbia River and its tributaries. The authority under this permit increases the scope and scale of current management and expands lethal removal to include Steller sea lions. It also expands the area of potential removals and it will increase removal activity to 10 per year. Previously, removing sea lions required a multistep process, including branding animals and identifying repeat offenders. This new authority has streamlined this process and, as a result, will increase the number of trappings and lethal removals in the future. To fully implement the program under the new permit, the States and Tribes are requesting \$4 million in Federal funds. This will supplement funds that the States and Tribes are currently contributing.

## 4. INTEGRATED OCEAN OBSERVING SYSTEMS (IOOS) PROGRAM: \$80.8 MILLION

*Increase IOOS Funding Levels.*—Study of the estuary and near-shore environment is critical to understanding not only the impacts to treaty trust resources, but also

actions needed to restore these resources. CRITFC has expanded its work to include the Coastal Margin Observation and Prediction Program (CMOP) whose main funding is through the NOAA-administered Integrated Ocean Observing System (IOOS) Program. Since 2020, we have partnered with the Northwest Association of Networked Ocean Observing Systems (NANOOS) through our acquisition of the CMOP program which has been a NANOOS-supported effort since 2004. The CMOP infrastructure, now operated by CRITFC, has been integral to NANOOS for decades and will remain so. The multi-institutional collaborative structure of the IOOS regional associations ensures that the Tribes are integrated into the governance and decision-making processes.

We strongly encourage a funding level of \$69.5 million be invested in the regional IOOS network and its partners using the funding for Coastal, Ocean, and Great Lakes Observing Systems to refurbish aging infrastructure, modernize equipment, and address critical issues facing our collective communities. Expansion of IOOS capabilities in biological monitoring is important to CRITFC's interest in improving ocean conditions for salmon and allow regional partnerships to continue to address Biden Administration priorities for climate change, racial equity, and the economy.

*Improve Collaboration between NOAA Programs.*—OAA should aim to create a comprehensive understanding of the Columbia River estuary and the near shore environment and work to improve the collaboration between these programs. CRITFC has collaborated with NOAA's Office of Coast Survey (OSC) in numeric and hydrodynamic modelling and plan to expand this effort to include hydrographic surveys in the confluence areas of Zone 6 of the Columbia River mainstem, where our Tribes primarily exercise their treaty-reserved fishing rights. This collaboration should be expanded with funding at \$11.3 million in the Navigation, Observations and Positioning line to address issues of floodplain restoration and flooding to improve salmon survival.

In summary, CRITFC and our four member Tribes have developed the capacity and infrastructure to become the regional leaders in restoring and rebuilding Columbia Basin salmon populations. Our collective efforts protect our treaty-reserved fishing rights and provides healthy, harvestable salmon populations for all citizens to enjoy. We will be pleased to provide any additional information that this subcommittee may require.

[This statement was submitted by Casey Mitchell, Chair]

---

#### PREPARED STATEMENT OF CONSORTIUM OF SOCIAL SCIENCE ASSOCIATIONS

On behalf of the Consortium of Social Science Associations (COSSA), I offer this written testimony for inclusion in the official committee record. For fiscal year (FY) 2023, COSSA urges the Committee to appropriate:

- \$11 billion for the National Science Foundation
- \$2 billion for the Census Bureau
- \$50 million for the National Institute of Justice
- \$60 million for the Bureau of Justice Statistics

First, allow me to thank the Committee for its long-standing, bipartisan support for scientific research. Strong, sustained funding for all U.S. science agencies is essential if we are to make progress toward improving the health and economic competitiveness of the Nation. The need for increased investment in science has become even more pronounced in light of the disruptions caused over the past 2 years by the COVID-19 pandemic.

COSSA serves as a united voice for a broad, diverse network of organizations, institutions, communities, and stakeholders who care about a successful and vibrant social and behavioral science research enterprise. We represent the collective interests of all STEM disciplines engaged in the rigorous study of why and how humans behave as they do as individuals, groups and within institutions, organizations, and society.

Social and behavioral science research is supported across the Federal Government, including at the National Science Foundation and the Department of Justice. Further, Federal statistics produced by the Census Bureau and other Federal statistical agencies provide data needed to conduct social science research to inform policy decisions. Taken together, Federal social and behavioral science and statistical data help provide answers to complex, human-centered questions.

In short, knowledge derived from social and behavioral science research has made our population healthier, our democracy fairer, our Nation safer, and our economy stronger, and not just in times of crisis. Without these sciences, policymaking on

major national and global issues would not be based on evidence, and billions of dollars would be wasted.

#### NATIONAL SCIENCE FOUNDATION

COSSA joins the broader scientific community in support of \$11 billion for the National Science Foundation (NSF) in FY 2023. The U.S. scientific enterprise, including NSF, requires stability, predictability, and sustainable funding growth, as well as Federal policies that are patient and can tolerate a reasonable amount of risk in order to achieve the greatest payoff.

##### *Supporting All of STEM*

NSF is the only U.S. Federal agency tasked with supporting basic research across all fields of science. NSF supports about a quarter of all federally funded basic scientific research conducted at colleges and universities nationwide and serves as the largest single funder of university-based basic social and behavioral science research. Though NSF's Social, Behavioral, and Economic Sciences Directorate (SBE)—one of eight research directorates at NSF—represents less than five percent of the entire NSF research budget, it supports around two-thirds of total Federal funding for academic basic research in the social and behavioral sciences (excluding psychology). As the primary funding source for the majority of our disciplines, stagnant or reduced funding for SBE has an outsized impact on the social and behavioral science community. As increased investment is made in NSF, we are hopeful the social, behavioral and economic sciences will see commensurate investments.

Further, while by far the smallest of the research directorates, SBE's impact is huge. The National Academies of Sciences, Engineering and Medicine stated in its 2017 consensus report, *The Value of Social, Behavioral, and Economic Sciences to National Priorities*<sup>1</sup>, that “nearly every major challenge the United States faces—from alleviating unemployment to protecting itself from terrorism—requires understanding the causes and consequences of people's behavior. Even societal challenges that at first glance appear to be issues only of medicine or engineering or computer science have social and behavioral components.” We all observed first-hand the importance of understanding behavioral and social systems over the last 2 years as the world collectively worked to gain control of the COVID-19 pandemic. From mask mandates to vaccine hesitancy, the social and behavioral sciences have been shining light on this uniquely human challenge and informing policy solutions at all levels.

##### *Keeping NSF Competitive*

As we speak, a conference committee is considering sweeping innovation legislation (the America COMPETES Act) that contains reauthorization provisions for NSF and seeks to push the agency into new frontiers in technology transfer and convergence research. As the committee knows, NSF has already started moving in this direction with the establishment of the Technology, Innovation and Partnerships Directorate (TIP) in FY 2022. COSSA hopes that future support for and investment in TIP and related activities is also met with a commitment to maintaining the NSF's defining characteristic, which is to be the incubator for basic scientific discovery across all areas of science. NSF's investigator-initiated, discovery-driven identity is what makes it special and has kept the American science enterprise at the leading edge of innovation. We look forward to seeing how social and behavioral science will be incorporated into the work of the new TIP directorate in addition to ongoing support for social science across the foundation.

#### CENSUS BUREAU, U.S. DEPARTMENT OF COMMERCE

COSSA requests that the Committee appropriate \$2 billion for the Census Bureau in FY 2023. Social scientists across the country rely on the Census Bureau for accurate, timely, objective, and relevant data to better understand the U.S. population and to produce findings that help us shape policies that better serve the American people.

After a decade in which the Census Bureau received inconsistent and delayed funding, had to curtail essential research and testing of operations, and experienced significant pandemic-related disruptions, investments are needed to not only help the agency recover, but to also help it improve the collection and delivery of official statistics for the Nation. A modest increase in funding in FY 2023 could help the

<sup>1</sup> <https://www.nap.edu/catalog/24790/the-value-of-social-behavioral-and-economic-sciences-to-national-priorities>.

Census Bureau recover from years of postponed enhancements, sustain and strengthen its mission, and pursue numerous necessary operational innovations.

In addition, COSSA calls on Congress to fully fund the American Community Survey (ACS) and maintain its status as a mandatory Federal survey. The ACS is the only source of comparable, consistent, timely, and high-quality demographic and socio-economic data for all communities in the U.S. As a component of the Decennial Census, the ACS is a “mandatory” national survey. The Census Bureau needs additional funds to expand the ACS sample size (which has not been expanded since 2011) to produce more timely, granular data for a significant number of geographies and sub-populations than currently achievable. This would provide communities more timely data to fill in any gaps in the 2020 Decennial Census results caused by the pandemic.

NATIONAL INSTITUTE OF JUSTICE, U.S. DEPARTMENT OF JUSTICE

COSSA requests that the Committee appropriate at least \$50 million for the National Institute of Justice (NIJ) within the U.S. Department of Justice’s (DOJ) Office of Justice Programs (OJP). NIJ provides funding for research, development, and evaluation projects at institutions across the country to shed light on the most pressing issues facing our Nation’s criminal justice system today, including the drivers of domestic radicalization, responses to the opioid epidemic, improving school safety, advancing forensic science, and fostering positive relationships between law enforcement and the communities they serve—not to mention our urgent need to better understand and respond to the impacts of the COVID–19 pandemic on the incarcerated population and on our court systems.

We recognize that tough funding tradeoffs must be made each year; however, we were disappointed to see the 19 percent cut to NIJ in the final FY 2022 appropriations bill. Despite our growing need for objective, science-backed solutions, over the past decade, NIJ’s purchasing power has dropped by 40 percent due to the combined effect of declining appropriations and inflation. Compounding this pressure are Congressionally mandated directives for specific activities, nearly always without the inclusion of additional funding to the agency’s bottom line. As a result, 60 percent of NIJ’s FY 2022 appropriation will be directed to Congressionally requested research, not including a number of additional projects requested without a specifically allocated funding level. An increase to the NIJ base budget would give the agency the flexibility to direct funding to the most pressing and promising areas of science across all domains of justice research, while still being responsive to topics of Congressional concern.

BUREAU OF JUSTICE STATISTICS, U.S. DEPARTMENT OF JUSTICE

Similarly, we were disappointed by the 11 percent cut to the Bureau of Justice Statistics in the FY 2022 appropriations bill. As the Department’s principal statistical agency, the Bureau of Justice Statistics produces high-quality data on all aspects of the United States criminal justice system, including corrections, courts, crime type, law enforcement personnel and expenditures, Federal processing of criminal cases, Indian country justice statistics, and victims of crime. COSSA urges the Committee to appropriate at least \$60 million for the Bureau of Justice Statistics (BJS).

Steady declines in funding have resulted in antiquated systems and, especially, staffing shortfalls, which can only be resolved by sustained investment. Despite a growing demand from policymakers, researchers, and other stakeholders for high-quality criminal justice data across an expanding array of variables, BJS’ purchasing power has dropped by nearly one-third (32.7 percent) since FY 2012 due to the combined effect of declining appropriations and inflation. Additional funding would allow the agency to modernize its data collection and dissemination systems, hire the necessary experts, and to begin to develop the next generation of statistical products to keep pace with the ever-changing criminal justice environment.

Thank you for the opportunity to offer this statement. Please do not hesitate to contact me should you require additional information.

[This statement was submitted by Wendy A. Naus, Executive Director]

PREPARED STATEMENT OF DAUGHTERS OF PENELOPE

Chair Jeanne Shaheen, Ranking Member Jerry Moran, and distinguished members of the Commerce, Justice, and Science Appropriations subcommittee, the Daughters of Penelope (DOP), an international service organization for women of Greek heritage and Philhellenes, which is dedicated, in part, to supporting victims of domestic violence, is requesting meaningful support for Victims of Crime Act



(VOCA) (Office of Justice Programs—OVC) and Violence Against Women Act (VAWA) (Office of Violence Against Women—OVW) programs at the Department of Justice.

We thank Congress for passing the VOCA Fix to Sustain the Crime Victims Fund Act of 2021, which will stabilize the Crime Victims Fund. To continue funding the essential and lifesaving services to crime victims, Congress must provide a Crime Victims Fund cap for FY2023 that is set at \$2.65 billion; and as the President's FY2023 budget rightfully proposes, without any transfers to programs not authorized under the VOCA statute. Moreover, we also are grateful to Congress for passing a strong bipartisan-backed reauthorization of VAWA through 2027. Now, it must be properly funded. Therefore, we support-at a minimum-the President's strong proposed investment FY23 request of \$1 billion for VAWA programs.

#### VOCA PROGRAMS & CRIME VICTIMS FUND

The Victims of Crime Act (VOCA) created the Crime Victims Fund (CVF), which serves as a mechanism to fund compensation and services for the Nation's victims of Federal crime. The Fund is comprised of money from criminals, and by law, the Fund is dedicated solely to victim services. For example, the Fund is used to help pay for state victim compensation and assistance programs and grants to victim service providers. A considerable amount supports victims' out-of-pocket expenses such as medical and counseling fees, lost wages, and funeral and burial costs. In FY2019, 6.5 million victims of violent crime, including domestic violence, received services through Victim Assistance programs, according to the Department of Justice.<sup>1</sup> The Fund provides formula grants to over 11,000 local victim assistance programs.<sup>2</sup> These agencies provided services to nearly millions of victims of crime, including victims of murder, assault and sexual assault, domestic violence, child abuse, stalking and elder abuse, and others.

The Crime Victims Fund is financed by fines, forfeitures, or other penalties paid by Federal crime offenders. Therefore, the Crime Victims Fund is not funded by taxpayer dollars. However, it is unfortunate Congress often carves out funds from the CVF to use as offsets for other government programs. Because CVF is comprised of non-taxpayer dollars, it should not be considered available for use for non-VOCA programs in the Federal budget. Moreover, as the former Congressional Victims' Rights Caucus would advocate, "not only does raiding the Crime Victims Fund violate the intent of the law, but it violates the [VOCA] statute itself . . . ." Therefore, we recommend to the subcommittee that the Fund be used only for programs authorized under the VOCA statute. However, recent appropriations bills passed by Congress, and previous administrations' budget requests, have carved out funds from the Crime Victims Fund for non-VOCA authorized programs. As example, in FY2022, Congress transferred \$575 million from the CVF to VAWA programs, the highest level. We applaud the President's budget for rightfully eliminating transfer, and we request the elimination of transfers that harm the Fund's long-term viability and ability to commit fully to crime victims.

Finally, we recommend setting the Crime Victims' Fund cap to at least \$2.65 billion. Congress established an appropriation cap on funds available for distribution intended to maintain the CVF as a stable source of support for future victim services. At the cap level, Congress will not only ensure the continuation of enhanced services to victims to meet their needs, but it also does not contribute or add to the National debt or deficit because these are non-taxpayer funds.

#### VAWA PROGRAMS

Domestic violence is a pervasive, life-threatening crime affecting millions of individuals across our Nation regardless of age, gender, socio-economic status, race or religion. The statistics are alarming. According to the National Network to End Domestic Violence (NNEDV)<sup>3</sup>:

- More than 1 in 3 women have experienced rape, physical violence, and/or stalking by an intimate partner in their lifetime.
- Approximately 8 million women are raped, physically assaulted, and/or stalked by a current or former intimate partner each year.
- 1 in 5 women and 1 in 71 men have experienced rape in her or his lifetime.
- Nationwide, an average of 3 women are killed by a current or former intimate partner every day.

<sup>1</sup> <https://www.justice.gov/doj/page/file/1249306/download>, Page 17.

<sup>2</sup> <https://www.justice.gov/jmd/page/file/1489521/download>, Page 144.

<sup>3</sup> NNEDV Domestic Violence Fact Sheet, accessed [https://nnedv.org/wp-content/uploads/2019/07/Library\\_General\\_DV\\_SA\\_Factsheet.pdf](https://nnedv.org/wp-content/uploads/2019/07/Library_General_DV_SA_Factsheet.pdf).

According to the Centers for Disease Control and Prevention (CDC) and The National Intimate Partner and Sexual Violence Survey (NISVS) 2015 Data Brief:

- In the United States, intimate partner contact sexual violence, physical violence, and/or stalking was experienced by 36.4% (or 43.6 million) of U.S. women during their lifetime.<sup>4</sup>
- One in 4 women and 1 in 7 men have experienced physical violence by an intimate partner during their lifetime.<sup>5</sup>

Also, of concern, are the following stats:

- On average, nearly 20 people per minute are physically abused by an intimate partner in the United States. During 1 year, this equates to more than 10 million women and men.<sup>6</sup>
- Nationwide, an average of 3 women are killed by a current or former intimate partner every day.<sup>7</sup>
- Approximately 15.5 million children are exposed to domestic violence annually.<sup>8</sup>

Our nation's response to intimate partner and domestic violence is driven by VAWA programs. Each of these programs is critical to ensuring that victims are safe, that offenders are held accountable, and that our communities are more secure. Thanks to VAWA, steady progress has been made there are many victims who still suffer in silence. A 2021 24-hour survey of domestic violence programs across the U.S. found that although 20,701 Hotline calls were received (averaging more than 14 calls every minute). However, 9,444 requests for services (such as emergency shelter, transportation, or legal representation) went unmet because programs lacked the resources to provide them.<sup>9</sup> Sixty-four percent of the unmet services were for Housing and Emergency Shelter. In total, 70,032 victims were served in one day. The unconscionable gap between need and resources only widens.

#### DAUGHTERS OF PENELOPE'S WORK TO SUPPORT DOMESTIC VIOLENCE SHELTERS

Why are VAWA and VOCA programs important to the Daughters of Penelope? In addition to our chapters supporting domestic violence shelters in their respective local communities, the Daughters of Penelope is a national sponsor and stakeholder of two domestic violence shelters—Penelope House in Mobile, Alabama, and Penelope's Place in Brockton, Massachusetts. In the past, the Daughters of Penelope has supported WIN Hellas, which is an NGO based in Athens, Greece, that is active in the prevention of violence against women.

Penelope House was the first shelter established in Alabama when it opened its doors in 1979. Since then, Penelope House is recognized as a model shelter for others to emulate. VAWA and VOCA grant funding has been critical in helping Penelope House to meet its mission of providing safety, protection, and support to victims of domestic violence and their children through shelter, advocacy, and individual and community education. Penelope House has been awarded VAWA and VOCA grants from the following programs: Shelter Services, Court Advocate Program, and Transitional Living Program. Portions of these grants help to fund the case managers, case and court advocates, and children's counselors and program coordinators, among other employees who help to provide the life-saving support to domestic violence victims and their children.

#### STATISTICS—EFFECTIVENESS AND IMPORTANCE OF VAWA & VOCA GRANT FUNDING

- Historically, VOCA/VAWA grant funding more than 25% of Penelope House's budget.

Penelope House's Court Advocacy Program is funded by VOCA & VAWA. Its 2021 stats, which were all increases, yet still impacted by the coronavirus pandemic, for clients served were:

- Adult Clients: 8,251
- Children: 7,080
- Court Appointments with Clients: 6,761
- Clients Assisted to obtain protection from abuse or no contact orders: 1,358

<sup>4</sup> <https://www.cdc.gov/violenceprevention/pdf/2015data-brief508.pdf>.

<sup>5</sup> <https://www.cdc.gov/violenceprevention/intimatepartnerviolence/fastfact.html> f.

<sup>6</sup> [https://www.cdc.gov/violenceprevention/pdf/nisvs\\_report2010-a.pdf](https://www.cdc.gov/violenceprevention/pdf/nisvs_report2010-a.pdf).

<sup>7</sup> NNEDV Domestic Violence Fact Sheet, <https://nnedv.org/wp-content/uploads/2020/07/DVSA-Fact-Sheet-July-2020.pdf>.

<sup>8</sup> Ibid.

<sup>9</sup> 16th Annual Domestic Violence Counts Report, accessed <https://nnedv.org/wp-content/uploads/2022/03/16th-Annual-Domestic-Violence-Counts-National-Summary-FINAL.pdf>.

VOCA supports the salaries and benefits for seven Court/Victim Advocates who provide services to victims of domestic violence throughout Mobile, Washington, Clarke, and Choctaw Counties of Alabama as they navigate within the court system. (VOCA grant funding has become increasingly important to Penelope House because its services were expanded to include more counties in Alabama.)

VAWA supports a full-time Court Advocate Administrative Assistant and a portion of the salary for a Court/Victim Advocate for the Court Advocacy Program. The Court Advocate Administrative Assistant provides administrative support to Court/Victim Advocates and assistance to the Court Advocacy Supervisor. The assistant also collects and compiles program data needed for the evaluation of the Court Advocacy Program. The Court Advocate Administrative Assistant is dually trained to serve as a Court/Victim Advocate when necessary, in case of illness or any other absence of court advocates. Thus, a victim will not have to be alone as he/she attempts to navigate within the court system.

Penelope House's Emergency Shelter Program is funded by VOCA. It's 2021 service stats-again impacted due to the pandemic-were:

- Adults sheltered: 233
- Children sheltered: 252
- Total Client Service Hours: 4,226.24
- Total Nights of shelter provided: 5,989
- Crisis calls: 1,573
- Meals Served: 15,824

#### RECOMMENDATION

The Daughters of Penelope (DOP) is requesting support for Victims of Crime Act (VOCA) and Violence Against Women Act (VAWA) programs, which are vital to DOP programs that serve its mission. Specifically, we request a Crime Victims Fund cap for fiscal year 2023 to be set at least at \$2.65 billion and without any transfers to programs not authorized under the VOCA statute, as rightfully proposed by the President's FY23 budget. The Fund is not funded by taxpayer dollars. Therefore, the cap can be sustained or raised without adding to the National debt or deficit. We also support the Biden administration's strong investment request of \$1 billion for VAWA programs, at a minimum.

Clearly, as the missions of domestic violence centers across the country, such as Penelope House, have expanded into jurisdictions due to the unfortunate increased need to provide victims' services, the viability of VOCA and VAWA grants have become increasingly important to meet the victims' needs.

Thank you for the opportunity to present and submit our written testimony before the subcommittee.

[This statement was submitted by Kathy Bizoukas, National President]

---

#### PREPARED STATEMENT OF DEMAND PROGRESS

Dear Chair Shaheen, Ranking Member Moran, and members of the committee:

Thank you for the opportunity to submit testimony on improving transparency and accountability at the Department of Justice (DOJ). My name is Daniel Schuman and I serve as Policy Director at Demand Progress. We urge you to ensure congressional and public access to legal opinions rendered by the Office of Legal Counsel (OLC) at the Justice Department that are afforded the force of law.

Before I begin, please allow me to thank you for including language in the FY 2022 and FY 2021 Commerce, Justice, Science Appropriations Committee Joint Explanatory Statement concerning OLC opinions. We urge you to further strengthen that language.

#### BACKGROUND

OLC's core function, according to an OLC memoranda, is to provide "controlling advice to Executive Branch officials on questions of law that are centrally important to the functioning of the Federal Government."<sup>1</sup> This legal advice "may effectively be the final word on the controlling law," yet it is routinely withheld from both Con-

---

<sup>1</sup>Department of Justice, Memorandum for Attorneys of the Office re: Best Practices for OLC Advice and Written Opinions, July 16, 2010, available at: <https://www.justice.gov/sites/default/files/olc/legacy/2010/08/26/olc-legal-advice-opinions.pdf>.

gress and the public.<sup>2</sup> This withholding in effect creates secret law that controls agency actions but is shielded from both public debate and Congressional oversight.

Secrecy undermines accountability. Congress must understand how the Executive branch interprets the Constitution and implements laws enacted by Congress. Allowing legal opinions that are accorded precedential value and the force of law to remain the sole province of the Executive branch thwarts Congress's lawmaking and oversight prerogatives. It removes consequences for agency decisions and short-circuits the public feedback process integral to a functioning democracy.

Secrecy also poisons the operations of the Office of Legal Counsel. Public scrutiny would create persistent pressure for the promulgation of responsible, high quality, objective legal opinions. By contrast, OLC legal opinion secrecy ensures the most salient incentive for OLC attorneys is to lean towards a legal opinion that a given administration desires—not the legal opinion that best reflects the law. There are high profile examples of this happening.<sup>3</sup> In some instances, the OLC ultimately withdrew its own legal opinions when they came to light; in at least one instance, the OLC secretly concluded explicit statutory language was unconstitutional and, therefore, inapplicable to the Executive branch.<sup>4</sup> Building transparency into the process helps ensure that OLC legal analyses face scrutiny by Congress, scholars, and members of the public.

In December 2004, 19 former senior DOJ officials—including the now-Assistant Attorney General for the Office of Legal Counsel, Christopher Schroeder—endorsed a document calling for increased transparency, entitled *Principles to Guide the Office of Legal Counsel*.<sup>5</sup> One principle was that “OLC should publicly disclose its written legal opinions in a timely manner, absent strong reasons for delay or nondisclosure.”<sup>6</sup> According to the *Principles* document, public disclosure of written legal opinions is important because:

Such disclosure helps to ensure executive branch adherence to the rule of law and guard against excessive claims of executive authority. Transparency also promotes confidence in the lawfulness of governmental action. Making executive branch law available to the public also adds an important voice to the development of constitutional meaning—in the courts as well as among academics, other commentators, and the public more generally—and a particularly valuable perspective on legal issues regarding which the executive branch possesses relevant expertise.<sup>7</sup>

A similar statement on the Office of Legal Counsel and the rule of law was released in October 2020, with significant contributions from a comparable array of legal experts.<sup>8</sup> It endorsed publication of and transparency for OLC opinions. Specifically, the statement endorsed: a strong presumption in favor of publishing final OLC opinions; disclosing OLC advice deemed classified, privileged, or sensitive to congressional committees when an agency relies upon that advice to justify a major policy decision or executive action; and releasing a public index of its memoranda. “OLC exercises a form of public trust, and because its views of the law’s meaning shape executive action and policy, Congress and the public both have compelling interests in understanding the legal basis of executive action.”

<sup>2</sup> *Id.*

<sup>3</sup> See, for example, a Statement by Sen. Patrick Leahy at a February 26, 2010 hearing before the Senate Committee on the Judiciary entitled *The Office of Professional Responsibility Investigation into the Office of Legal Counsel Memoranda*, in which he said, “The fundamental question here is not whether these were shoddy legal memos. They were shoddy legal memos. Everybody knows that.... It failed to cite significant case law; it twisted the plain meaning of statutes. The legal memoranda were designed to achieve an end.” (emphasis added). See also a letter from select members of the Senate Committee on the Judiciary to Attorney General Garland urging the Department of Justice to not appeal D.C. District Judge Amy Berman Jackson’s May 3, 2021 decision ordering the release of an OLC memorandum (May 14, 2021), available at <https://www.durbin.senate.gov/imo/media/doc/2021-05-14%20Letter%20to%20AG%20Garland.pdf>.

<sup>4</sup> “Report on the President’s Surveillance Program,” by the Offices of the Inspectors General of the Department of Defense, the Department of Justice, the Central Intelligence Agency, the National Security Agency, and the Office of the Director of National Intelligence (July 10, 2009), at 14, available at <https://oig.justice.gov/reports/2015/PSP-09-18-15-full.pdf>.

<sup>5</sup> “*Principles to Guide the Office of Legal Counsel*” (Dec. 21, 2004), available at: [https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=2927&context=faculty\\_scholarship](https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=2927&context=faculty_scholarship).

<sup>6</sup> *Id.*

<sup>7</sup> *Id.* (emphasis added).

<sup>8</sup> “*The Office of Legal Counsel and the Rule of Law*,” American Constitution Society (October 2020), available at: <https://www.acslaw.org/wp-content/uploads/2020/10/OLC-ROL-Doc-103020.pdf>.

Transparency strengthens our constitutional order. It helps ensure that the checks and balances between the Legislative and Executive branches function as the framers intended. Congress must have visibility into how the Executive branch interprets the Constitution and implements laws enacted by Congress.<sup>9</sup> The OLC must be incentivized to render legal opinions that apply the law without fear or favor.

We note that OLC legal opinions are rendered both as “formal opinions” and “informal advice.” Both constitute legal advice that is binding within the Executive branch, follow a formal approval process, have precedential value within OLC, and are tracked in an OLC database. The major distinction is only the format in which the advice is rendered: a “formal opinion” is turned into a carefully formatted, written document and some are published online, whereas “informal advice” may be rendered as an email or in verbal form, which is then reduced to a memo for the record. Accordingly, we would apply the principle of transparency articulated in the Principles document to disclosure of OLC legal opinions regardless of format.

We are aware of some limited disclosure provisions within the 2010 Office of Legal Counsel Memorandum for Attorneys of the Office: Best Practices for OLC Legal Advice and Written Opinions.<sup>10</sup> However, the last dozen years have demonstrated that this memorandum does not go far enough to protect the integrity of OLC legal opinions or confidence in the work of OLC attorneys. Indeed, the 2020 statement by legal experts declares “OLC itself has been in crisis for some time.” The process outlined in section III of the 2010 Memorandum, under a heading entitled Opinion Publication and Other Public Disclosure, is exactly the wrong approach. It describes a system that creates a presumption that OLC opinions will be withheld unless an arduous process is followed, with multiple consultations and veto points, and no end date. It requires that the publication committee affirmatively decide to publish an opinion.

#### RECOMMENDATIONS

Our request is twofold. First, we ask you to direct the Office of Legal Counsel to make its opinions publicly available upon issuance, except in narrow circumstances. The default for the government should be openness.<sup>11</sup> Second, we request you direct the Office of Legal Counsel to release an index of all current OLC opinions and to update that index on a regular basis.

The default rule must be that OLC legal opinions will be made publicly available contemporarily with their issuance. While there necessarily will be exceptions to disclosure, those exceptions should be narrow, constrained, and used only when necessary. Only Congress can guarantee this will happen. The FOIA is a powerful remedy, but it is slow, limited, and evaded by the Executive branch. The language included in the Joint Explanatory Statements accompanying the FY 2021 and FY 2022 Appropriations bills has thus far been unavailing on OLC opinion transparency.<sup>12</sup>

<sup>9</sup>For example: the Department of Justice issued a secret Office of Legal Counsel opinion at the request of the Executive branch that authorized Executive branch employees to engage in torture. The opinion was unfounded and withdrawn when it came to light. Nevertheless, the DOJ would not prosecute the officials who obtained the advice because they were acting in conformity with an OLC opinion and the DOJ as a policy declines to prosecute those who follow its advice. This kind of circular reasoning undermines the rule of law. See “Statement of the Attorney General Regarding Investigation into the Interrogation of Certain Detainees,” Office of Public Affairs (June 30, 2011) “I made clear at that time that the Department would not prosecute anyone who acted in good faith and within the scope of the legal guidance given by the Office of Legal Counsel regarding the interrogation of detainees.” <https://www.justice.gov/opa/pr/statement-attorney-general-regarding-investigation-interrogation-certain-detainees>.

<sup>10</sup>See “Best Practices for OLC Legal Advice and Written Opinions,” Office of Legal Counsel (July 2010), available at <https://www.justice.gov/sites/default/files/olc/legacy/2010/08/26/olc-legal-advice-opinions.pdf>

<sup>11</sup>See “Freedom of Information Act, Memorandum for the Heads of Executive Departments and Agencies,” The White House (January 21, 2009), available at <https://obamawhitehouse.archives.gov/the-press-office/freedom-information-act>; “Freedom of Information Act Guidelines,” Office of the Attorney General (March 15, 2022), available at <https://www.justice.gov/ag/page/file/1483516/download>.

<sup>12</sup>While the report language included by the CJS Appropriations subcommittee in the House of Representatives addressed these issues squarely, the superseding Joint Explanatory Statement language on OLC opinions provides wiggle room and defers to the DOJ. See Report, Commerce, Justice, Science and Related Agencies Appropriations Bill, 2021, H. Rpt. 116-455, p. 59, <https://www.congress.gov/116/crpt/hrpt455/CRPT-116hrpt455.pdf>, superseded by Joint Explanatory Statement, p. 61, <https://docs.house.gov/bills/20201221/BILLS-116RCP68-JES-DIVISION-B.pdf>; see Report, Commerce, Justice, Science and Related Agencies Appropriations

To address disclosure exceptions, Congress should direct the OLC to publicly release and maintain an index of all its opinions. OLC should publish the name of the opinion; the date it was finalized or revised; the author's name (i.e., the person who signed it); each recipient's name; identify whether the opinion has been withdrawn; and other salient information. Congress and the public should know how many OLC legal opinions exist. It is astonishing that there has yet to be a full accounting of the opinions.<sup>13</sup>

There is precedent for an index. The FOIA Improvement Act, enacted in 2016, established a 25-year limit for the Executive branch to assert deliberative process privilege as an exemption to a FOIA request.<sup>14</sup> A recent lawsuit brought by the Knight First Amendment Center, *Francis v. DOJ*, resulted in an agreement whereby the DOJ is producing indexes of OLC opinions more than 25 years old.<sup>15</sup> Similarly, the 2020 statement by legal experts endorsed indices.

We urge that you adopt more vigorous language concerning the Office of Legal Counsel contained in the report (H. Rept. 117–97) that accompanied the House Commerce, Justice, Science, and Related Agencies Appropriations Act for FY 2022. It would fully address the issues raised above and limit the Justice Department's ability to evade Congress's directive to make OLC opinions publicly available.

Thank you again for the opportunity to submit this testimony.

#### PREPARED STATEMENT OF ENTOMOLOGICAL SOCIETY OF AMERICA

The Entomological Society of America (ESA) respectfully submits this statement for the official record in support of funding for the National Science Foundation (NSF). ESA joins the research community by requesting a robust fiscal year (FY) 2023 appropriation of \$11 billion for NSF, including strong support for the Directorate for Biological Sciences (BIO). Through activities within BIO, NSF advances the frontiers of knowledge about complex biological systems at multiple scales, from molecules and cells to organisms and ecosystems. In addition, the Directorate contributes to the support of essential research resources, including biological collections and field stations. NSF BIO is also the Nation's primary funder of fundamental research on biodiversity, ecology, and environmental biology.

NSF is the only Federal agency that supports basic research across all scientific and engineering disciplines, outside of the medical sciences. Each year, the Foundation supports an estimated 300,000 researchers, scientific trainees, teachers, and students, primarily through competitive grants to approximately 2,000 colleges, universities, and other institutions in all 50 States. NSF also plays a critical role in training the next generation of scientists and engineers through programs like the Graduate Research Fellowship Program (GRFP), ensuring that the United States will remain globally competitive in the future.

NSF-sponsored research in entomology and other basic biological sciences, primarily supported through NSF BIO, provides the fundamental discoveries that advance knowledge and facilitate the development of new technologies and strategies for addressing societal challenges related to economic growth, national security, and human health. Because insects constitute two out of every three species, fundamental research on their biology has provided foundational insights across all areas of biology, including cell and molecular biology, genomics, physiology, ecology, behavior, and evolution. In turn, these insights have been applied toward challenges in a wide range of fields, including conservation biology, habitat management, livestock production, and pest management.

Insects have long played an essential role as model organisms for understanding basic biological processes across all organisms and as sentinel species to give indications of potential environmental risks to human populations. For example, insect behavior patterns can be an indicator of climatic and environmental conditions, as many species and populations are forced to migrate or adapt due to the impacts of

Bill, 2020, H. Rpt. 116–101, pp. 45–46, <https://www.congress.gov/116/crpt/hrpt101/CRPT-116hrpt101.pdf>, superseded by Joint Explanatory Statement, p. 30, <https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20B%20-%20CJS%20SOM%20FY20.pdf>.

<sup>13</sup> Congress has previously considered legislation on OLC opinions. For example, the Senate Judiciary Committee favorably reported the OLC Reporting Act of 2008 (S. 3501, 110th Congress). We note the introduction in the 117th Congress of the DOJ OLC Transparency Act (S. 3858) and the SUNLIGHT Act of 2022 (H.R. 7619).

<sup>14</sup> Public Law 114–185 (114th Congress). <https://www.congress.gov/bills/114th-congress/senate-bill/337>.

<sup>15</sup> The Knight First Amendment Institute at Columbia University is publishing the index on its website. <https://knightcolumbia.org/reading-room/olc-opinions>.

climate change. One area of NSF-supported research worthy of continued support is advancing our knowledge of the impact of environmental changes on important pollinators, including bumblebees. Better understanding how various factors, including those induced by climate change, impact bumblebee feeding behavior can help advance innovative methods to protect these insects and the agricultural economies that rely heavily on them for pollination.<sup>1</sup> One recent study funded by the Systematics and Biodiversity Science cluster within BIO observed changes in the feeding behavior of bumblebees in response to changes in both the microbial and sugar content of nectar due to increases in temperature. This study, in conjunction with other ongoing research in this complex area, could have significant implications for the agricultural industry as it seeks to adapt to the impacts of climate change.<sup>2</sup>

NSF also supports the development of technologies and methods that directly impact economic sectors that are highly dependent on entomology. For example, recent GRFP recipients have explored innovative approaches to managing pest-induced agricultural damage to commodity crops and insects' behavioral responses to external stimuli, with significant economic and human health implications. A recent study led by an NSF GRFP recipient investigated the effectiveness of post-harvest cold storage in spotted-wing drosophila control. Spotted-wing drosophila is a uniquely devastating pest of small fruits like blueberries, raspberries, and strawberries owing to its ability to lay eggs in ripening fruit. The estimated revenue losses of wild blueberries due to spotted wing drosophila to amount to nearly \$7 million in the State of Maine alone.<sup>3</sup> The study found that storing fruit at or near freezing temperatures for 3–5 days resulted in decreased pest survival. After accounting for slight daily cost depreciation from holding the crop and the initial investment of purchasing a cold storage system, farmers could realize individual net profits of \$88,000 to \$483,000 over 20 years by utilizing these post-harvest cold storage protocols.<sup>4</sup> This practice also has the potential to reduce the need for pesticides and could prevent unintentional spread of the pest through shipment and trade.

Another study led by a GRFP recipient sought to determine whether certain compounds on the outer surface of German cockroaches play a role in shelter choice and aggregation. These insects are an abundant household and commercial pest globally, accounting for 15 percent of pest control industry sales across the U.S. and 40 percent of insect-related household and structural damage in some States.<sup>5</sup> Beyond these economic impacts, German cockroaches also pose health risks as both an asthma-causing allergen and a potential route of transmission for bacteria and other pathogens. Determining how cockroaches choose where to shelter could inform innovative control strategies. The study demonstrated that one candidate category of compounds, cuticular hydrocarbons, were not effective in causing the cockroaches to aggregate.<sup>6</sup> The chemical cues important for inducing aggregation in German cockroaches remain unresolved, presenting an important challenge in urban pest biology and control that requires continued support from Federal research programs to promote health, well-being, and scientific understanding.

In addition to funding research, NSF BIO plays a critical role in the curation, maintenance, and enhancement of physical-biological collections. These collections and their associated data sets serve a variety of purposes, and while they are particularly important to the field of entomology, their value to the broader scientific enterprise cannot be overstated. Physical collections enable the rapid identification and mitigation of costly invasive pests that affect agriculture, forestry, and human and animal health. This is only achievable because such collections are continuously

<sup>1</sup>Main, Douglas. Bumblebees Are Going Extinct in a Time of 'Climate Chaos'. *Animals*, National Geographic, 4 May 2021, <https://www.nationalgeographic.com/animals/article/bumblebees-going-extinct-climate-change-pesticides>.

<sup>2</sup>Russell, Kaleigh A., and Quinn S. McFrederick. Elevated Temperature May Affect Nectar Microbes, Nectar Sugars, and Bumble Bee Foraging Preference—Microbial Ecology. *SpringerLink*, Springer US, 1 Oct. 2021, <https://link.springer.com/article/10.1007/s00248-021-01881-x>.

<sup>3</sup>Yeh, D. Adeline, Drummond, Francis A., Gómez, Miguel I., and Fan, Xiaoli. The Economic Impacts and Management of Spotted Wing Drosophila (*Drosophila suzukii*): The Case of Wild Blueberries in Maine. *Journal of Economic Entomology*, 6 Jun. 2020, <https://pubmed.ncbi.nlm.nih.gov/31943106/>.

<sup>4</sup>Kraft, L.J. et al. Determining the effect of postharvest cold storage treatment on the survival of immature *Drosophila suzukii* (Diptera: Drosophilidae) in small fruits. *Journal of Economic Entomology*, 11 Sept. 2020, <https://doi.org/10.1093/jee/toaa185>.

<sup>5</sup>Lee, C.Y. and Wang, C. German cockroach infestations in the world and their social and economic impacts. In: *Biology and Management of the German Cockroach*, 2021, eds: Wang C, Lee CY, and Rust MK.

<sup>6</sup>Hamilton, J.A., Wada-Katsumata, A., and Schal, C. Role of cuticular hydrocarbons in German cockroach (Blattodea: Ectobiidae) aggregation behavior. *Environmental Entomology*, 28 Apr. 2019, <https://doi.org/10.1093/ee/nvz044>.

being updated to reflect environmental changes, evolutionary developments, and shifting migratory patterns of invasive species around the world. Furthermore, new and emerging technologies enable scientists to gain novel insights from physical historic samples in an ongoing manner.

While collections-focused awards are encouraging, ESA is concerned by the inconsistent Federal support for biological collections. Recent advancements in imaging, digitization, and data collection and storage technologies have caused some to question the necessity of continued support for existing biological collections. ESA recognizes that technological development is spurring substantive discussion about the future of biological collections. However, while these new developments and advancements will hopefully yield new benefits for biological research, they are not a replacement for physical biological collections. Furthermore, new and emerging technologies enable scientists to gain novel insights from physical historic samples in previously unanticipated way. Given their continuing relevance and broad application to domestic homeland security, public health, agriculture, food security, and environmental sustainability, ESA firmly supports continued Federal investment in programs supporting collections such as NSF's Infrastructure Capacity for Biological Research.

Given NSF's critical role in supporting fundamental research and education across science and engineering disciplines, ESA supports an overall FY 2023 NSF budget of \$11 billion. ESA requests robust support for the NSF BIO Directorate, which funds important research studies and biological collections, enabling discoveries in the entomological sciences to contribute to understanding environmental and evolutionary biology, physiological and developmental systems, and molecular and cellular mechanisms.

ESA, headquartered in Annapolis, Maryland, is the largest organization in the world serving the professional and scientific needs of entomologists and individuals in related disciplines. As the largest and one of the oldest insect science organizations in the world, ESA has over 7,000 members affiliated with educational institutions, health agencies, private industry, and government. Members are researchers, teachers, extension service personnel, administrators, marketing representatives, research technicians, consultants, students, pest management professionals, and hobbyists.

Thank you for the opportunity to offer the Entomological Society of America's support for NSF research programs. For more information about the Entomological Society of America, please see <http://www.entsoc.org/>.

[This statement was submitted by Jessica Ware, PhD, President]

---

#### PREPARED STATEMENT OF ENVIRONMENTAL AND ENERGY STUDY INSTITUTE

Thank you for the opportunity to submit written testimony for the record in support of programs under the subcommittee's jurisdiction at the National Oceanic and Atmospheric Administration (NOAA) that support climate change mitigation and adaptation. The Environmental and Energy Study Institute (EESI) is a non-profit organization founded in 1984 on a bipartisan basis by members of Congress to help educate and inform policymakers, their staff, stakeholders, and the American public about the benefits of a low-emissions economy that prioritizes energy efficiency, renewable energy, and new clean energy technologies. In 1988, EESI declared that addressing climate change is a moral imperative, and that has since guided our work.

Climate adaptation and resilience work should complement and, when possible, contribute to a decarbonized, clean energy economy. From droughts to wildfires and hurricanes to extreme heat, different regions, States, and communities will experience different climate change-related threats. Communities need locally-tailored, accessible, and actionable data and support to make informed decisions to reduce their climate risks and safeguard the ecosystems on which they depend.

This testimony is informed by EESI's report, *A Resilient Future for Coastal Communities: Federal Policy Recommendations from Solutions to Practice*.<sup>1</sup> This report is based on EESI's 16-part Congressional briefing series that featured 42 coastal resilience experts discussing federal, State, and local programs and policies conducting effective climate adaptation to coastal hazards. The testimony is also informed by EESI's 2021 article series on Federal resilience programs.<sup>2</sup> This nine-part series reviews program background information, the program connection to adaptation and

---

<sup>1</sup>A Resilient Future for Coastal Communities: Federal Policy Recommendations from Solutions to Practice: <https://www.eesi.org/papers/view/a-resilient-future-for-coastal-communities>.

<sup>2</sup>EESI Federal Resilience Programs article series: <https://www.eesi.org/federal-resilienceprograms>.



resilience, an example of the program in action, and results of the program for six NOAA programs.<sup>3</sup>

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)  
CLIMATE-RELATED PROGRAMS

EESI supports the Biden-Harris Administration's budget, which would provide \$6.9 billion for NOAA in fiscal year 2023. This would represent a \$800 million increase from the 2022 enacted level of \$6.1 billion. The budget also calls for \$376 million specifically for climate resilience. NOAA plays a critical role in climate resilience work, in conjunction with other Federal agencies, and this amount of funding should be seen as a floor, not a ceiling, for what is needed to support U.S. communities as they adapt to the impacts of climate change.

EESI's Congressional briefing on March 18, 2022, Climate Adaptation Programs Across Agencies,<sup>4</sup> outlined NOAA's role in advancing adaptation and resilience work. Key NOAA tools highlighted in the briefing include Climate.gov, Drought.gov, Atlas 14, and the Digital Coast Sea Level Rise Viewer. These critical tools require funding to ensure they are up-to-date and accessible to people who want to apply the information to their work.

The 2020s must be the decade where significant strides are made on climate adaptation and resilience planning, data, project implementation, and evaluation. All these efforts must be scaled up to meet the magnitude of the challenge we face. This is only possible with adequate, sustainable funding from Congress in support of this work.

Thank you for your consideration.

[This statement was submitted by Daniel Bresette, Executive Director]

PREPARED STATEMENT OF FAMILY BASED ALTERNATIVE SENTENCING (FBAS)

Chairwoman Shaheen, Ranking Member Moran, and members of the subcommittee, I offer my written testimony in support of the request for \$10 million for Family Based Alternative Sentencing (FBAS) currently funded through the Byrne Grant Program and administered by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) in the Department of Justice, to be used to fund State, local, and community agencies to replicate successful parenting sentencing alternative programs. FBAS corrects the systemic failure of American criminal justice to take the needs, emotions and well-being of families into account after arrest, pretrial and at sentencing following conviction, a failure which contributes to family disruption, alienation among children and community harm.

I submit my testimony as a lawyer who has been active in, and a close observer of, criminal and juvenile justice in the United States for more than 45 years. I began my career as a criminal defense attorney with community based and law school legal clinics in Chicago, Illinois, and as staff attorney with the National Legal Aid and Defender Association in Washington, DC where I specialized in sentencing in criminal case. For 19 years I was the founding Executive Director of The Sentencing Project, also in Washington, DC. I also served as Executive Director of the John Howard Association of Illinois, an adult and juvenile corrections oversight organization. More recently I was Project Director for the New York based Center on Community Alternatives' Project New Opportunity in Washington, DC, a reentry program staffed principally by previously-incarcerated individuals which achieved highly successful outcomes for persons released from the Federal Bureau of Prisons in 2017-2018.

Over my career I have been the attorney for parents facing separation from their children at sentencing, spoken with scores of incarcerated parents and with their

<sup>3</sup>NOAA National Sea Grant College Program: <https://www.eesi.org/articles/view/federal-resilience-series-noaa-national-sea-grant-college-program>. NOAA Coral Reef Conservation Program: <https://www.eesi.org/articles/view/federal-resilience-programs-noaa-coral-reef-conservation-program>.

NOAA Coral Reef Conservation Program: <https://www.eesi.org/articles/view/federal-resilience-programs-noaa-coral-reef-conservation-program>. NOAA National Centers for Coastal Ocean Science: <https://www.eesi.org/articles/view/federal-resilience-programs-noaa-national-centers-for-coastal-ocean-science>.

NOAA Cooperative Institutes: <https://www.eesi.org/articles/view/federal-resilience-programs-noaa-cooperative-institutes>. National Centers for Environmental Information: <https://www.eesi.org/articles/view/federal-resilience-programs-national-centers-for-environmental-information>. Mission "Iconic Reefs:" <https://www.eesi.org/articles/view/federal-resilience-programs-mission-iconic-reefs>.

<sup>4</sup>Climate Adaptation Programs across Agencies: <https://www.eesi.org/briefings/view/031822fed>.

children, and represented and interviewed youth struggling with the emotional consequences of the incarceration of at least one parent. At Project New Opportunity, I saw up close how difficult family reunification could be after years of a parent's incarceration.

My experience confirms the pain and adverse impacts that a parent's incarceration brings down upon their children which is described in research provided by others to the subcommittee.<sup>1</sup> As a third-party witness, however, I cannot match the power of the voices of the formerly incarcerated parents and the children of incarcerated parents when they testify to their experience and to the damage to a child's social and emotional development, health, education, finances and housing stability that flows from incarceration of a parent.

But as a former practitioner who has had much opportunity to observe criminal court processes and corrections operations, I would like to offer that Family Based Alternative Sentencing programs will help correct for a systemic failure, a deficiency in justice if you will, long present in criminal justice as it operates in this country.

Historically and to my observation, criminal courts have not taken factors such as parental status and family relationships into account during the pendency of a case, in deciding pretrial release, or at sentencing after conviction.

Surprisingly, being a parent with custody of a child is not one of the codified mitigating factors a court need consider in order to mitigate or help define an appropriate sentence.

Similarly, criminal courts and the probation agencies under their supervision typically have not attempted to fashion sentences or administer supervision in ways that ameliorate the adverse impact of incarcerating a parent upon their children. As the research details, criminal courts have been quite content to leave the fate of children of parents they incarcerate to family courts, guardians at litem, child welfare case workers and foster parents, sometimes but not nearly often enough, with good effect.

It may well be that these deficiencies came about because, in large part, current sentencing practices and sentences were shaped in the years before the dramatic increase in the number of women in State and Federal prisons—800% from 1978 to 2016.<sup>2</sup> The fact is that as late as the early 1970's criminal courts and sentencing were dominated by males. Fewer women were being sentenced to prison, and men were less likely to be, or at least to be considered to be, the primary caregivers of their children.

The responsibility for a failure of the system to take into account the needs of the children of parents facing incarceration is shared. Defense attorneys such as myself focused on our clients' legal defenses. With a few remarkable exceptions, most of us did not attend to family dynamics or to the trauma, disruption, or the psychological impact our client's case had on her or his child. Moreover, most defense attorneys—particularly over-extended and understaffed public defenders—were not equipped by training or with resources to take on the challenge of minimizing damage to a child when a parent is incarcerated, pretrial or after conviction.

As for corrections, few state prison systems provide accommodations or material support for parents, even for incarcerated mothers, to help sustain family relationships.<sup>3</sup>

<sup>1</sup>For an earlier research-based study which sounded the alarm about the negative impact of incarcerating a parent, see: Allard, Patricia and Greene, Judith *Children on the Outside: Voicing the Pain and Human Costs of Parental Incarceration*, Justice Strategies (January 2011).

<sup>2</sup>Carson, E., *Prisoners under the jurisdiction of State or Federal correctional authorities*, December 31, 1978–2016, Washington, DC: Bureau of Justice Statistics (2017).

<sup>3</sup>The exceptions demonstrate the rule. For example, the "Moms and Babies" program which the Illinois Department of Corrections launched in 2007, which I visited it while in Illinois, claimed a "Zero Percent Recidivism Rate" after 4 years. It is regarded in many respects a model for programs that keep infants united with their mothers, of which there are only about seven others nationally. Yet, housed in Illinois' Logan Correctional Center which holds more than 1,000 women, of whom about 70% have been mothers, after 11 years Moms and Babies reported having served just 90 mothers, on average less than 9 per year. Illinois did not invest heavily in the program, claiming that it was "budget-neutral" and sustained by community donations and volunteers. Meanwhile, support for the hundreds of mothers not in the program and their families lagged. In 2015, a Gender Informed Practices Assessment (GIPA) conducted at Logan with technical assistance from National Institute of Corrections and the National Resource Center on Justice-Involved Women (NRCJIW) found major deficiencies in support for families, including termination of state-funded transportation for families seeking to visit incarcerated mothers. Prompted in part by the GIPA, Illinois enacted the Women's Correctional Services Act in 2017 which directed the Illinois Department of Corrections to implement "gender responsive policies, practices, programs, and services [that are] considered relational, culturally competent, family-centered, holistic, strength-based, and trauma-informed." Yet as basic as its efforts were, Illinois is one of just a handful of States with any correctional programs or legislated mandates

My experience with reentry, in which family reunification is important, drove home the deficiencies of our courts and correctional agencies to address the issue while a parent is incarcerated. Personally, I observed parents released from Federal prison struggling to reconnect with children who had rejected them, were angry, had themselves become substance abusers, or who had bonded with another family. For all the years of their incarceration, often hundreds of miles from their children, these parents had not been counseled or assisted by programs designed to mitigate the pain and harm of separation. The closest to any kind of program of assistance were volunteer and non-profit-sponsored family bus trips to prison; multiple hours both ways that were themselves sometimes so trauma-inducing that incarcerated parents urged their children not to visit.

The appropriations legislation you are considering is encouraging, a bright promise of improvement in justice. As the subcommittee will hear, there are now programs which provide alternatives to incarcerating parents. Programs in California, Illinois, Massachusetts, Tennessee, Oregon, and Washington are giving children greater stability and sense of belonging, contributing to family success, and, I have no doubt by doing so, helping to reduce crime, support families and improve communities. These programs have been shown to have high success rates compared to outcomes where there is no assistance or alternative to incarceration.

The legislation before this subcommittee will provide support for programs that build upon these recent successes. That is why I respectfully urge the subcommittee to support \$10 million in funding for programs that will help keep families together, will assist the children of incarcerated parents, and will encourage alternatives to incarceration for parents of children whenever possible.

Respectfully submitted,  
Malcolm C. Young, Attorney at Law

---

PREPARED STATEMENT OF FEDERATION OF AMERICAN SOCIETIES  
FOR EXPERIMENTAL BIOLOGY

Dear Chair Shaheen and Ranking Member Moran:

As the largest coalition of biomedical researchers in the United States, representing 28 member societies and 115,000 individual scientists, the Federation of American Societies for Experimental Biology (FASEB) recommends at least \$11 billion for the National Science Foundation for FY 2023.

Federal investments in fundamental research have led to remarkable progress in the biological and biomedical sciences. Basic research was the groundwork for the speed—months instead of years—that led to the development of COVID-19 vaccines and also supports pre-clinical research involving the use of animal studies to achieve medical progress.

Despite Congress' bipartisan support for investing in science, Federal funding for research has not kept pace, posing a threat to our Nation's competitiveness. We face a real threat of losing our edge in industries such as biotechnology if we do not prioritize increasing investments in science, research infrastructure such as core facilities, and building a diverse workforce<sup>1</sup> The U.S. spends less on research and development (R&D) than many countries. If the U.S. is to be prepared to respond to future threats, our scientific leadership must progress. According to Science Is Us, there is the added benefit of jobs. STEM supports 69 percent of U.S. gross domestic product, touches two out of three workers, and generates \$2.3 trillion in tax revenue.<sup>2</sup>

With a mandate to support fundamental research across all fields of science, engineering, and mathematics, the NSF is the cornerstone of our Nation's scientific and innovation enterprise while also advancing our security and economic interests. Through a new technology, innovation and partnerships directorate it will be better able to collaborate with other stakeholders to translate fundamental research into commercially viable products and services enhancing our competitiveness on the global stage. At current funding levels, NSF is not meeting the needs of researchers with innovative ideas bridging multiple disciplines that could bring forth new tech-

---

addressing the challenges confronting incarcerated parents and their children. A description of the advantages and limitations of the Logan program and the National context is provided in: Dworsky, A., Fedock, G., Schlecht, C., Malcome, M., Murray, C., & Hazel, C., Addressing the needs of incarcerated mothers and their children in Illinois, (Chapin Hall at the University of Chicago and the University of Chicago's School of Social Service Administration) 2020.

<sup>1</sup> <https://nces.nsf.gov/pubs/nsb20201/executive-summary>.

<sup>2</sup> STEM and the American Workforce. You've heard it before: STEM jobs - . . . | by Science is US | Medium.

nologies and industries. Doubling NSF's grant award amounts and increasing their duration to 4 years from 3 years is needed.<sup>3</sup> Many potentially fundable proposals are declined each year.

Among Federal science agencies, NSF has the unique capacity to:

*Support Multi-Disciplinary Research.*—By leveraging its portfolio across the sciences, NSF funds cutting-edge research at the interface of the physical, biological, and social sciences to tackle challenges in creative ways, including climate change, biodiversity loss, and one health.<sup>4</sup>

*Organize and Lead Research Partnerships at Speed and Scale.*—The NSF coordinates and leads interagency research endeavors, including partnerships with NIH and DOE SC. These collaborations advance public health and clean energy, the development of artificial intelligence, and other national priorities.<sup>5</sup>

*Train the Next Generation of Scientists From Diverse Backgrounds.*—NSF plays a key role in creating educational pathways and supporting the accessibility of scientific education, training scientists from diverse backgrounds to increase inclusivity in science. These scientists—some of whom will become entrepreneurs—will work across different scientific disciplines, broaden participation in science and engineering among underrepresented and diverse groups.<sup>6</sup>

Despite its critical role in accelerating science and innovation, NSF's budget has been flat in constant dollars since the 2010 COMPETES Act.<sup>7</sup> There is also a pressing need to expand our scientific enterprise across all disciplines as well as diversify the STEM workforce. Recent data demonstrates that NSF was able to fund only 28 percent of the high-quality research proposals that were submitted, rather than the National Science Board recommendation of 30 percent.<sup>8</sup> According to the FY 2020 Merit Review Digest from NSF, approximately \$3.9 billion was requested for declined proposals that were rated Very Good or higher in the merit review process (about 4,233 declined proposals received ratings of 4.0 or greater). These declined proposals represent a rich portfolio of unfunded opportunities—proposals that, if funded, may have produced substantial research and education benefits.<sup>9</sup>

Meanwhile, according to the National Science Board's Science & Engineering (S&E) Indicators 2022 report, the US is falling behind at 10 percent compared to China's 49 percent of international patents received from 2010 to 2020.<sup>25</sup> The publication of research in peer-reviewed literature—the primary mechanism for disseminating new S&E knowledge—grew at an annual average rate of three percent for high-income countries such as the US compared 11 percent for upper middle-income countries such as China, Russia and Brazil over a 10 year period.<sup>10</sup>

Our recommendation of at least \$11 billion, will allow NSF to establish a new grant program for early-career fellowships as envisioned in congressional legislation, fund more high-quality research proposals, and increase NSF's average award size.<sup>11,12</sup> In addition, this funding level will support NSF's new technology, innovation and partnerships directorate (TIP) which will work with all of NSF's directorates and offices to advance the impacts of NSF-funded research by accelerating the translation of fundamental science and engineering discoveries into innovative new technologies and solutions. TIP will provide an optimized lab-to-market platform, fund the successful Partnerships for Innovation, Small Business Innovation Research, and Small Business Technology Transfer programs. NSF could also accelerate key priorities, including Big Ideas that include understanding the rules of life, future of work at the human-technology frontier, mid-scale research infrastructure, inclusion across the Nation, Innovation Corps, biotechnology and harnessing the

<sup>3</sup> Senate Appropriations Committee's Commerce, Justice, Science and Related Agencies explanatory language for FY 2022, page 2 released Oct. 15, 2021.

<sup>4</sup> NSF's 10 Big Ideas, National Science Foundation, Alexandria, VA.

<sup>5</sup> NSF Collaborations with Federal Agencies and Others, National Science Foundation, Alexandria, VA.

<sup>6</sup> Education and Human Resources Directorate, National Science Foundation, Alexandria, VA.

<sup>7</sup> Subcommittee Report H.R. 2225—National Science Foundation for the Future Act July 2021.

<sup>8</sup> <https://www.nsf.gov/pubs/2021/nsf21002/tables.jsp> Figure 1.5 NSF Competitive Proposals, New Awards, and Funding Rate.

<sup>9</sup> National Science Foundation, National Science Board, "Merit Review Process Fiscal Year 2020 Digest", page. 42.

<sup>25</sup> SCIENCE & ENGINEERING INDICATORS 2022. Figure 25—Shares of international patents granted to inventors, by selected country or economy: 2010 and 2020.

<sup>10</sup> SCIENCE & ENGINEERING INDICATORS 2022.

<sup>11</sup> American Innovation Act, S. 1249.

<sup>12</sup> Supporting Early Career Researchers Act, H.R. 144, Section 3—Supporting early-career research fellowship program.

data revolution for 21st Century Science and Engineering and major investments in graduate education.<sup>13</sup>

[This statement was submitted by Ellen Kuo, Associate Director, Legislative Affairs]

---

PREPARED STATEMENT OF FEDERATION OF ASSOCIATIONS IN  
BEHAVIORAL AND BRAIN SCIENCES

The Federation of Associations in Behavioral and Brain Sciences (FABBS) is grateful for the opportunity to submit testimony for the record in support of the National Science Foundation (NSF) budget for fiscal year 2023. FABBS represents twenty-seven scientific societies and over fifty university departments whose members and faculty share a commitment to advancing knowledge of the mind, brain, and behavior. As a leading member of the Coalition for National Science Funding, FABBS joins the broader scientific community in urging Congress to fund NSF with at least \$11 billion in FY 2023.

NSF-funded research pays long-term dividends in innovation and technologies driving our economy, national security, well-being, and other areas of significant importance to our Nation. In addition, NSF research and programs provide the tools to develop a workforce equipped for the challenges and technologies of the future and foster the next generation of scientists—with a commitment to broad participation—whose work will keep this country at the forefront of discovery.

We are grateful for the four percent increase provided to NSF in the FY 2022 omnibus spending legislation. Nonetheless, NSF needs more consistent and ambitious funding increases to meet our country's needs and to re-invigorate Federal research and development at a time when our global competitors are looking to surpass American investments. Funding for the NSF has remained stagnant over the past decade despite established bipartisan and bicameral support for the NSF, including essential contributions to prevent and address COVID-19, spark economic growth, and strengthen national security; and despite evidence that the U.S. has lost standing in international competitiveness.

As the House and Senate move to conference on the America COMPETES Act and the United States Innovation and Competition Act, it is clear that now is the time to increase Federal support for the NSF to ensure the future health, security, and economic well-being of our Nation. While Congress provides an expanded vision for NSF, the agency requires additional resources to realize the potential of its existing programs. One out of every four basic research projects at higher learning institutions across the United States is supported by the NSF and the Foundation's merit review process is the international gold-standard. However, in FY 2020, almost \$4 billion worth of proposals were rated very good but were declined due to inadequate resources.

NSF Director Panchanathan has stated that proposals that do receive funding could produce better research outcomes and provide better value by increasing the size and duration of grants. In fact, he has said that NSF could double their budget on the current research and researchers that go unfunded, and “a quadrupling of the funding is just barely enough to be able to take us to all the ideas being unleashed so that we might be far ahead of the competition.”

SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES

FABBS scientists have a particular interest in the Social, Behavioral and Economic (SBE) Sciences directorate, which provides an estimated 64 percent of the Federal funding for fundamental research in SBE sciences at academic institutions across the country.<sup>1</sup> Thus, our fields are heavily dependent on the NSF to inform discoveries from expanding our understanding of the mechanisms of memory underlying brain activity, to contributing to the design and assessing the social and ethical consequences of new technologies.

Findings from the brain and behavioral sciences have extensive reach and applicability. For example, SBE funded researchers studying violent extremism delivered new insights that the National security community is now using to develop more effective strategies to disrupt recruitment and counter extremism.

During the COVID-19 pandemic, SBE scientists contributed in many ways, including through the Societal Experts Action Network (SEAN). This partnership between NSF's SBE directorate and the National Academies of Science, Engineering,

---

<sup>13</sup> NSF Budget FY 2022.

<sup>1</sup> [https://www.nsf.gov/about/budget/fy2023/pdf/74\\_fy2023.pdf](https://www.nsf.gov/about/budget/fy2023/pdf/74_fy2023.pdf).

and Medicine provided actionable responses to urgent policy questions. Consulting leading researchers in the social, behavioral, and economic sciences, SEAN has published guidance to inform more effective public policy.<sup>2</sup> The National Science Foundation's ability to conduct rapid-response programs such as SEAN is just one example of the many ways in which NSF is uniquely suited to capitalize on scientific discovery for the betterment of society.

SBE is also home to the National Center for Science and Engineering Statistics (NCSES), a Federal statistical agency that provides statistical information about the United States' science and engineering (S&E) enterprise. NCSES collects, analyzes, and disseminates data on research and development (R&D), the S&E workforce, the condition and progress of science, STEM education, and U.S. competitiveness in science, engineering, and technology R&D.

#### TECHNOLOGY, INNOVATION, AND PARTNERSHIPS

On March 16, NSF officially launched a new Directorate for Technology, Innovation, and Partnerships (TIP). This exciting new venture will take a cross-cutting approach to speed the translation of basic research to make a difference in American's lives. By building on existing multidisciplinary programs, such as the Convergence Accelerator, TIP will integrate the expertise of all NSF directorates to spearhead new use-inspired research.

To maximize the benefits of the TIP directorate, NSF must make sure to take full advantage of the behavioral and brain sciences. All of the directorate's target focuses, such as clean energy, quantum science, artificial intelligence, supercomputing, etc., have human components. Whether it is optimizing the user interface for a new technology or finding the most effective way to communicate with lay audiences, brain and behavioral scientists should be included to help maximize the return on investment for these new programs.

Substantial, sustained funding increases will allow NSF to realize the full potential of the TIP directorate by investing in critical new programs while bolstering the existing investments in basic research—including in the social, behavioral, and economic sciences—which underly future societal, economic, and technological advances.

In addition to receiving support from SBE, FABBS members appreciate critical funding from the Computer and Information Science and Engineering Directorate (CISE), which funds research on topics such as human-technology interaction and cyber-assisted learning, the Biological Sciences (BIO) Directorate, which funds research on topics such as sleep and circadian rhythms and sex differences in responses to stress, and the Education and Human Resources (EHR) Directorate, which funds research on increasing America's human capital through effective education in science, technology, engineering and mathematics. EHR is especially vital to expanding participation in science through programs such as S-STEM, which provides scholarships to enable low-income students with academic ability, talent, or potential to pursue successful careers in promising STEM fields.

Increasing Federal investment in fundamental scientific research across all sciences is critical to ensuring the future prosperity, security, and health of our Nation and its people. We urge you to provide NSF with at least \$11 billion for FY 2023. Along with the broader scientific community, we believe that increased funding for fundamental scientific research would set the NSF on a path to yield transformative benefits to the country. We thank you in advance for your commitment to robust funding in fiscal Year 2023 and efforts to complete the budget in a timely manner.

Thank you for considering this testimony.

#### *FABBS Member Societies:*

Academy of Behavioral Medicine Research, American Educational Research Association, American Psychological Association, American Psychosomatic Society, Association for Applied Psychophysiology and Biofeedback, Association for Behavior Analysis International, Behavior Genetics Association, Cognitive Neuroscience Society, Cognitive Science Society, Flux: The Society for Developmental Cognitive Neuroscience, International Congress of Infant Studies, International Society for Developmental Psychobiology, National Academy of Neuropsychology, The Psychonomic Society, Society for Behavioral Neuroendocrinology, Society for Computation in Psychology, Society for Judgment and Decision Making, Society for Mathematical Psychology, Society for Psychophysiological Research, Society for the Psychological Study of Social

<sup>2</sup> <https://www.nationalacademies.org/our-work/societal-experts-action-network>.

Issues, Society for Research in Child Development, Society for Research in Psychopathology, Society for the Scientific Study of Reading, Society for Text & Discourse, Society of Experimental Social Psychology, Society of Multivariate Experimental Psychology, Vision Sciences Society

*FABBS Affiliates:*

APA Division 1: The Society for General Psychology; APA Division 3: Experimental Psychology; APA Division 7: Developmental Psychology; APA Division 28: Psychopharmacology and Substance Abuse; Arizona State University; Binghamton University; Boston College; Boston University; California State University, Fullerton; Carnegie Mellon University; Duke University; East Tennessee State University; Florida International University; George Mason University; George Washington University; Georgetown University; Harvard University; Indiana University Bloomington; Johns Hopkins University; Lehigh University; Massachusetts Institute of Technology; Michigan State University; New York University; North Carolina State University; The Ohio State University; Center for Cognitive and Brain Sciences; Pennsylvania State University; Princeton University; Purdue University; Rice University; Southern Methodist University; Syracuse University; Temple University; Texas A&M University; Tulane University; University of Arizona; University of California, Berkeley; University of California, Irvine; University of California, Los Angeles; University of California, Riverside; University of California, San Diego; University of Chicago; University of Delaware; University of Illinois at Urbana-Champaign; University of Iowa; University of Maryland, College Park; University of Michigan; University of Minnesota; University of Minnesota, Institute of Child Development; University of North Carolina at Greensboro; University of Oregon; University of Pennsylvania; University of Texas at Austin; University of Texas at Dallas; University of Virginia; University of Washington; Virginia Tech; Wake Forest University; Washington University in St. Louis; Western Kentucky University; Yale University

[This statement was submitted by Juliane Baron, Executive Director]

PREPARED STATEMENT OF FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY

Chairman Leahy, Chairman Shaheen, Vice Chairman Shelby, Ranking Member Moran, and Members of the Commerce, Justice, Science, and Related Agencies subcommittee, thank you for the opportunity to submit public testimony on the Fiscal Year (FY) 2023 Commerce, Justice, Science, and Related Agencies Appropriations bill. Florida A&M University (FAMU) is grateful for the historic support of Congress during the pandemic. Increased funding for the National Oceanic and Atmospheric Administration's (NOAA) Education Partnership Program with Minority Serving Institutions (EPP/MSI) and the National Sea Grant College Program, as well as the National Science Foundation's (NSF) Education and Human Resources will have a direct impact on our University, our students, our region, and our Nation.

Florida A&M University, based in the State capital of Tallahassee, Florida, was founded in 1887 with only 15 students and two instructors. Today, FAMU offers 95 degree programs to nearly 10,000 students. We are proud to be the highest ranked among public Historically Black Colleges and Universities (HBCU) for three consecutive years, according to the 2022 U.S. News and World Report National Public Universities. The University is a leading land-grant research institution with an increased focus on science, technology, research, engineering, agriculture, and mathematics. As noted by Diverse Issues, FAMU is a top producer of African American undergraduate degrees and doctoral degrees in pharmacy and pharmaceutical sciences.

The Federal Government is a key partner and resource for FAMU. The Federal science agencies, in particular, support a wide range of the University's education, research, and training programs. In turn, we produce highly-skilled graduates in critical disciplines and conduct cutting edge research benefitting the Federal Government as well as the Nation. FAMU strongly supports funding for two important education programs under the Department of Commerce National Oceanic and Atmospheric Administration (NOAA), as well as education programs under the National Science Foundation Directorate for Education & Human Resources (EHR).

NOAA EDUCATION PARTNERSHIP PROGRAM WITH MINORITY SERVING INSTITUTIONS

FAMU is one of the four lead universities for the NOAA Education Partnership Program with Minority Serving Institutions (EPP/MSI) Cooperative Science Centers (CSCs), and as such we support the FY 2022 Senate recommended allocation of \$22

million for the program. The goal of the EPP/MSI is to increase the number of students, particularly from underrepresented communities, who attend MSIs and graduate with degrees in science, technology, engineering, and mathematics (STEM) relevant to NOAA's mission.

In August 2016 under the EPP/MSI program, NOAA awarded Cooperative Science Centers (CSCs) to four universities under 5-year cooperative agreements. This was the latest round of CSC awards since the program was first established in 2001. FAMU is the lead university for the Center for Coastal and Marine Ecosystems, one of the four CSCs. Our partners include Bethune Cookman University, California State University Monterey Bay, Jackson State University, Texas A&M University (Corpus Christi), and the University of Texas Rio Grande Valley. The annual appropriation supports FAMU, along with other lead MSIs, which partner with 24 additional U.S. colleges and universities as part of the CSC program with faculty and students conducting research that further supports NOAA's mission.

In April 2022, FAMU hosted Phase II of the Tenth Biennial NOAA EPP/MSI Education and Science Forum with over 460 registrants after holding the first phase virtually in 2021 due to COVID-19 concerns. The focus of the Forum is expanding academic training in NOAA-mission STEM disciplines, through partnership activities as well as promoting career opportunities for STEM graduates in the public, private, and academic sectors.

Since 2001, NOAA EPP/MSI Cooperative Science Centers institutions have awarded post-secondary degrees to over 2,500 students in fields that support NOAA's mission. Over the same time period, these institutions awarded over half of the doctoral degrees that were earned by African Americans in both atmospheric science and marine science in the United States. We support an increase in funding for this critical program, which supports NOAA-related research, increases diversity of the STEM workforce and fosters American competitiveness in STEM fields. We urge the subcommittee to again recommend an allocation of \$22 million for the NOAA EPP/MSI program.

#### NOAA NATIONAL SEA GRANT COLLEGE PROGRAM

FAMU also strongly supports the subcommittee providing the FY 2022 Senate recommended allocation of \$90 million for NOAA's National Sea Grant College Program, which works to create and maintain a healthy coastal environment and economy. The Sea Grant network consists of a federal/university partnership between NOAA and 34 university-based programs in every coastal and Great Lakes state, Puerto Rico, and Guam. The network draws on the expertise of more than 3,000 scientists, engineers, public outreach experts, educators, and students to help citizens better understand, conserve, and utilize America's coastal and Great Lakes resources.

The Florida Sea Grant program is a Statewide program headquartered at the University of Florida. The program supports research, education and extension to conserve coastal resources and enhance economic opportunities for the citizens of Florida. Since 1997, faculty and students at 13 participating institutions, including FAMU, have received Federal funding from the Florida Sea Grant. In 2020, the economic impact of the Florida Sea Grant program was \$16.6 million and resulted in 465 jobs created or sustained. The program also supported a variety of research and training relevant to Florida's coastal communities and related industries, including developing a model to project future flood risks to support Florida's coastal resiliency plans. The program augments the State's artificial reef efforts and helps to protect, enhance and restore coastal habitat. Nationally, the Sea Grant program had an economic impact of \$519.5 million in 2021, far exceeding the Federal investment in the program. The national program helped to create or sustain 11,044 jobs and 1,332 businesses. It also supported over 2,000 graduate and undergraduate students and fellows.

Last year, the Senate proposed to substantially increase funding for the National Sea Grant College Program under NOAA's Office of Oceanic and Atmospheric Research (OAR). Continued funding for this program, which has been in existence for more than 50 years, is critical to supporting Great Lakes and coastal communities, including those in Florida, through research, extension and education. FAMU, as a member of the Florida Sea Grant program, urges the subcommittee to again recommend an allocation of \$90 million for the Sea Grant program.

#### NATIONAL SCIENCE FOUNDATION EDUCATION PROGRAMS

The NSF Directorate for Education and Human Resources (EHR) supports a wide variety of programs across all levels of education in science, technology, engineering and mathematics (STEM). In particular, FAMU supports funding for the broadening



participation programs aimed at increasing the participation of underrepresented populations in STEM education and, ultimately, the STEM workforce. These programs include the Historically Black Colleges and Universities Undergraduate Program (HBCU-UP). FAMU urges the subcommittee to support the President's budget request of \$48.5 million for HBCU-UP.

FAMU has received significant research funding through NSF, which has supported various research projects as well as programs to promote underrepresented minorities in STEM careers. FAMU continues to pursue NSF resources for innovative projects and encourages the subcommittee to provide robust funding for NSF's education programs.

The President's FY 2023 budget requests \$1.38 billion for NSF's EHR programs. The budget also proposes an increase in the HBCU-UP program. Funding at the President's budget request for EHR and the HBCU-UP would allow NSF to expand its important work of supporting STEM education programs, particularly its broadening participation programs directed at underrepresented populations.

We urge the subcommittee to support funding increases for these critical NOAA and NSF education programs. We thank you for your continued support of Federal postsecondary initiatives that not only directly benefit our University but our region and our Nation as well. Thank you for your consideration.

[This statement was submitted by Larry Robinson, PhD, President]

---

#### PREPARED STATEMENT OF THE GEOLOGICAL SOCIETY OF AMERICA

The Geological Society of America (GSA) supports increased investments in geoscience research and education at the National Science Foundation (NSF) and National Aeronautics and Space Administration (NASA). GSA encourages Congress to appropriate at least \$11 billion for NSF in Fiscal Year 2023 and provide increases to NASA's Science Mission Directorate and its Earth Science and Planetary Science Divisions. Investment in NSF and NASA is necessary to secure America's future economic leadership, both through the discoveries made and the talent developed through their programs. For the United States to remain a global leader, the Nation must provide greater investment in its people, particularly women and individuals from other groups traditionally underrepresented in STEM fields. Earth and space science at these two agencies play a vital role in American prosperity and security through understanding and documenting mineral and energy resources that underpin economic growth; researching and monitoring potential natural hazards that threaten U.S. and international security; informing communities about the impacts of a changing climate; and determining and assessing water quality and availability.

GSA is a scientific society with members from academia, government, and industry in more than 100 countries. Through its meetings, publications, and programs, GSA enhances the professional growth of its members and promotes the geosciences in the service of humankind. GSA encourages cooperative research among earth, life, planetary, and social scientists, fosters public dialogue on geoscience issues, and supports all levels of earth science education.

#### NATIONAL SCIENCE FOUNDATION

The Geological Society of America (GSA) appreciates the increase to the National Science Foundation (NSF) budget in FY 2022 and thanks the Committee for recognizing the important role that the agency plays in our country's global competitiveness. We urge Congress to provide NSF at least \$11 billion in FY 2023. Increases in funding will allow NSF to continue to support its core basic research in addition to growing investments in its Ten Big Ideas and other transformational research, such as that funded by the new Directorate for Technology, Innovation and Partnerships (TIP).

Sustained increases beyond inflation are necessary to regain America's science and technology leadership and to enable the discoveries that lead to future innovations and industries. Data from the Merit Review Process Fiscal Year 2020 Digest show that NSF receives many more high-quality proposals than it can fund. In FY 2020, NSF was only able to fund 28% of the proposals received. The report noted, "Approximately \$3.9 billion was requested for declined proposals that were rated Very Good or higher in the merit review process—proposals that, if funded, may have produced substantial research and education benefits."

Geoscience research is a critical component of the overall science and technology enterprise and a key contributor to groundbreaking research across disciplines at NSF. Increased investments in NSF's geoscience portfolio are necessary to address

pressing issues including natural hazards, energy and minerals, water resources, and education.

- There is a vital need to understand the abundance and distribution of critical mineral resources, as well as the geologic processes that form them, as articulated in the Energy Policy Act of 2020. NSF's Division of Earth Sciences supports research on the structure, composition, and evolution of the Earth and the processes that govern the formation and behavior of the Earth's materials. This research contributes to a better understanding of the natural distribution of mineral and energy resources.
- The quality and quantity of surface water and groundwater have a direct impact on the wellbeing of societies and ecosystems, as evidenced by flooding and drought impacts experienced across the U.S. during the past year. NSF's research addresses major gaps in our understanding of water availability, quality, and dynamics, including the impact of both a changing climate and human activity on the water system.
- The Division of Atmospheric and Geospace Sciences provides critical infrastructure and research funding for understanding our planet, including weather and precipitation variability, atmospheric conditions, and space weather hazards. NSF is a key partner in obtaining data necessary to predict severe space weather events, which affect the electric power grid, satellite communications, and navigation systems, as noted in The Promoting Research and Observations of Space Weather to Improve the Forecasting of Tomorrow Act (PROSWIFT Act), which was signed into law in October of 2020.
- Understanding the oceans is key to a sustainable future. The National Research Council report *Sea Change, 2015–2025 Decadal Survey of Ocean Sciences* highlights areas of research that are needed to make informed decisions. These include better characterizing risk and the ability to forecast geohazards such as earthquakes, tsunamis, undersea landslides, and volcanic eruptions; rates, mechanisms, impacts, and geographic variability of sea level change; and changes in the marine food.
- Natural hazards are a major cause of fatalities and economic losses. NOAA found in 2021 alone, 20 weather/climate disaster events with losses greater than \$1 billion. An improved scientific understanding of hazards will reduce future losses by informing effective planning and mitigation. We urge Congress to support NSF investments in fundamental Earth science research and facilities that underpin innovations in natural hazards monitoring and warning systems. For example, the Coastlines and People Hubs for Research and Broadening Participation initiative aims to understand the impacts of coastal environmental variability and natural hazards on populated coastal regions.

#### NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

GSA appreciates past committee support of NASA Science and requests increases to NASA's Science Mission Directorate and its Earth Science and Planetary Science Divisions in FY 2023 as proposed in the President's budget request. Increased funding will be critical to implement the recommendations of the National Academy of Sciences report, *Thriving on Our Changing Planet: A Decadal Strategy for Earth Observation from Space*. The report notes:

*"Earth science and derived Earth information have become an integral component of our daily lives, our business successes, and society's capacity to thrive. Extending this societal progress requires that we focus on understanding and reliably predicting the many ways our planet is changing."*

The data and observations from Earth observing missions and research are a tremendously important resource for natural resource exploration and land use planning, as well as assessing water resources, natural disaster impacts, global agriculture production. The Landsat satellites have amassed the largest archive of remotely sensed land data in the world. On September 27, 2021, the NASA/USGS Landsat program launched its ninth satellite in its 50 year program that will operate in tandem with Landsat 8 and replace Landsat 7. GSA supports interagency efforts to ensure the future viability of Landsat satellites as well as funding to increase the capabilities and uses of multi-spacecraft constellations of small scientific satellites.

By looking at our planet as an integrated system, NASA's Earth and climate science efforts are among the Nation's most effective tools to understand and tackle climate change. For example, NASA's new Earth System Observatory consists of a series of Earth-focused missions that will create a holistic view of the Earth to provide key information related to climate change, natural hazards and agricultural

processes. In addition, NASA's proposal to create an Earth Information Center will make data more accessible to communities most affected by climate change.

Planetary research is directly linked to Earth science research and cuts in either program will hinder the other. In order to support missions to better understand the workings of the entire solar system, planetary scientists engage in both terrestrial field studies and Earth observation to examine geologic features and processes that are common on other planets, such as impact structures, volcanic constructs, tectonic structures, and glacial and fluvial deposits and landforms. In addition, geochemical planetary research studies include investigations of extraterrestrial materials now on Earth, including lunar samples, meteorites, cosmic dust particles, and, most recently, particles returned from comets and asteroids. We appreciate past congressional support for Planetary Science and urge you to continue to investment to allow NASA to move forward with priority missions as identified in the recent decadal survey, *Origins, Worlds, and Life: A Decadal Strategy for Planetary Science and Astrobiology 2023–2032*.

#### SUPPORT NEEDED TO EDUCATE FUTURE INNOVATORS

For the United States to remain a global leader, the Nation must provide greater investment in its people, including women and individuals from other groups traditionally underrepresented in STEM fields. NSF's Education and Human Resources Directorate researches and improves the way we teach science and provides research and fellowship opportunities for students that encourage them to continue in the sciences. Similarly, NASA's educational programs, led by NASA's Office of STEM Engagement and directorates, have inspired and led many into science careers. GSA fully supports these efforts, as well as additional programs to make the geoscience workforce more diverse, such as NSF INCLUDES. Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science.

Please contact GSA Director for Geoscience Policy Kasey White to learn more about the Geological Society of America—including GSA Position Statements on water resources, planetary research, energy and mineral resources, natural hazards, climate change, and public investment in Earth science research.

---

#### PREPARED STATEMENT OF GREAT LAKES INDIAN FISH AND WILDLIFE COMMISSION (GLIFWC)

*Summary of GLIFWC'S FY 2023 Testimony.*—GLIFWC supports sustained funding for the TRGP at no less than the FY 2022 enacted funding level. GLIFWC is closely monitoring misinformation and harassment related to the exercise of treaty rights and is working proactively with other jurisdictions to address social conflict and prevent its potential progression into extremism. This program has enabled GLIFWC to solidify its communications, training, and equipment requirements, essential to ensuring the safety of GLIFWC officers and the role of GLIFWC Conservation officers within the proper functioning of interjurisdictional emergency mutual assistance networks in the treaty ceded territories.

*Ceded Territory Treaty Rights and GLIFWC'S Role.*—GLIFWC was established in 1984 as a "Tribal organization" within the meaning of the Indian Self-Determination Act (Public Law 93–638). It exercises authority delegated by its member Tribes to implement Federal court orders and various interjurisdictional agreements related to their treaty rights. GLIFWC assists its member Tribes in:

- X securing and implementing treaty guaranteed rights to hunt, fish, and gather in Chippewa treaty ceded territories; and
- X cooperatively managing, restoring and protecting ceded territory natural resources and their habitats.



For over nearly 40 years, Congress and various Administrations have funded GLIFWC through the BIA, the Department of Justice, and other agencies to meet specific Federal obligations under: (1) a number of US/Chippewa treaties;<sup>1</sup> (2) the Federal trust responsibility; (3) the Indian Self-Determination and Education Assistance Act, the Clean Water Act, and other Federal legislation; and (4) various court decisions, including a 1999 US Supreme Court case, that affirmed the treaty rights of GLIFWC's member Tribes. Under the direction of its member Tribes, GLIFWC operates a ceded territory hunting, fishing, and gathering rights protection/implementation program through its staff of biologists, scientists, technicians, conservation enforcement officers, and public information specialists.

*Community-Based Policing.*—GLIFWC's officers carry out their duties through a community-based policing program. The underlying premise of that program is that effective detection and deterrence of illegal activities, as well as education of the regulated constituents, are best accomplished if the officers work within the Tribal communities they primarily serve. The officers work with reservation communities of the following member Tribes: in Wisconsin—Bad River, Lac Courte Oreilles, Lac du Flambeau, Red Cliff, Sokaogon Chippewa (Mole Lake), and St. Croix; in Minnesota—Fond du Lac and Mille Lacs; and in Michigan—Bay Mills, Keweenaw Bay, and Lac Vieux Desert. To help develop mutual trust between GLIFWC officers and Tribal communities, officers provide outdoor skills workshops and safety classes (hunter, boater, snowmobile, ATV) to Tribal youth in grades 4–8. GLIFWC's officers also actively participate in summer and winter youth outdoor activity camps, kids fishing events, workshops on canoe safety and rice stick carving, and seminars on trapping and archery/bow safety.

During the COVID-19 pandemic, GLIFWC's member Tribes saw a rise in harassment incidents across the ceded territory. GLIFWC's Conservation Officers have responded by increasing their coordination and cooperation with local law enforcement and by documenting and mapping the locations of these incidents. In May 2021, a roundtable discussion was held that included Senator Tammy Baldwin, Wisconsin Governor Tony Evers, DNR Secretary Preston Cole, Tribal leaders, and State and Tribal law enforcement to discuss how best to prevent and respond to these incidents. GLIFWC Conservation Officers have also increased their outreach to county sheriff's departments.

GLIFWC's member Tribes realize it is critical to build relationships between Tribal youth and law enforcement officers as a means of combatting gang recruitment and drug/alcohol abuse in reservation communities. GLIFWC is continuing to implement community policing strategies to build community relationships targeting

<sup>1</sup>Specifically, the Treaty of 1836, 7 Stat. 491; Treaty of 1837, 7 Stat. 536; Treaty of 1842, 7 Stat. 591; and Treaty of 1854, 10 Stat. 1109. The rights guaranteed by these treaties have been affirmed by various court decisions, including a 1999 U.S. Supreme Court case.

Tribal youth. GLIFWC Conservation Officers continue to work to improve and expand youth outdoor recreation activities to help prevent violations of Tribal off-reservation codes, improve public safety and promote an outdoor lifestyle as an alternative to potentially turning to violence<sup>2</sup> and substance abuse<sup>3</sup>. GLIFWC, in partnership with the U.S. Forest Service, plans to resume its Camp Onji-Akiing (From the Earth) in 2022.

*Interaction With Law Enforcement Agencies.*—GLIFWC's Conservation Officers are integral members of regional emergency services networks in Minnesota, Michigan, and Wisconsin. They not only enforce the Tribes' conservation codes but are fully certified officers who work cooperatively with authorities from other jurisdictions when they detect violations of State or Federal criminal and conservation laws. These partnerships evolved from the inter-governmental cooperation required to combat the violence experienced during the early implementation of treaty rights in Wisconsin. As time passed, GLIFWC's professional officers continued to provide a bridge between local law enforcement and many rural Indian communities.

GLIFWC remains at this forefront, using DOJ funding to develop interjurisdictional legal training that is attended by GLIFWC officers, Tribal police and conservation officers, Tribal judges, Tribal and county prosecutors, and State and Federal agency law enforcement staff. DOJ funding has also enabled GLIFWC to certify its officers as medical emergency first responders, and to train them in search and rescue, particularly in cold water rescue techniques. When a crime is in progress or emergencies occur, local, State, and Federal law enforcement agencies look to GLIFWC's officers as part of the mutual assistance networks. In fact, the role of GLIFWC's officers in these networks was further legitimized in 2007 by the passage of Wisconsin Act 27, which affords GLIFWC wardens the same statutory safeguards and protections that are afforded to their DNR counterparts. GLIFWC wardens now have access to the criminal history database and other information to identify whom they are encountering in the field so that they can determine whether they are about to face a fugitive or some other dangerous individual.

GLIFWC's participation in mutual assistance networks located throughout a 60,000 square mile region increases public safety in an effective and cost-efficient manner. In 2020, GLIFWC officers utilized prior DOJ funded training and equipment to assist in the patrol of 276,345 vehicle miles. GLIFWC officers continued to assist federal, State and local officers in: (1) responding to emergency backup requests from other law enforcement agencies; (2) accidents; (3) search and rescue operations; (4) medical calls including requiring CPR and an AED to resuscitate citizens; and (5) removing commercial fishing nets that have been damaged due to Lake Superior's strong storms or vandalism which pose navigation hazards.

*Looking to the Future.*—Tribal members are relying more heavily on off-reservation treaty harvesting activities, especially given the ongoing pandemic and rapidly increasing food costs. This necessitates more outreach to Tribal members to ensure they are exercising their rights safely and within Tribal regulations. It also requires education of the non-Tribal public about treaty rights. This work will proactively prevent and deter social conflict. GLIFWC's Conservation Officers are an integral part of this work and work closely with GLIFWC's public information staff to ensure that timely and accurate information about treaty rights is provided through GLIFWC media as well as the media outlets of other jurisdictions.

[This statement was submitted by Michael J. Isham, Executive Administrator]

#### PREPARED STATEMENT OF HUMAN FACTORS AND ERGONOMICS SOCIETY

On behalf of the Human Factors and Ergonomics Society (HFES), we are pleased to provide this written testimony to House Appropriations subcommittee on Commerce, Justice, and Science, and Related Agencies for the official record. HFES urges the subcommittee to provide at least \$11 billion for the National Science Foundation (NSF) in the fiscal year (FY) 2023 appropriations process. In addition, HFES supports efforts by NSF to broaden participation in science for underrepresented groups to ensure a diverse, equitable, and inclusive workforce and research

<sup>2</sup>The American Indian and Alaska Native (AI/AN) youth population is more affected by gang involvement than any other racial population. 15% of AI/AN youth are involved with gangs compared to 8% of Latino youth and 6% of African American youth nationally. (National Council on Crime and Delinquency: Glesmann, C., Krisberg, B.A., & Marchionna, S., 2009).

<sup>3</sup>22.9% of American Indian and Alaska Native (AI/AN) youth aged 12 and older report alcohol use, 18.4% report binge drinking and 16.0% report substance dependence or abuse. In the same group, 35.8% report tobacco use and 12.5% report illicit drug use. (2010 National Survey on Drug Use and Health: Summary of National Findings).

enterprise, such as the INCLUDES and ADVANCE initiatives. These efforts are critical to not only fixing inequities in the U.S. research enterprise but also to ensuring that the U.S. has the robust, 21st Century workforce needed to maintain its competitive edge in technological innovation.

HFES is a multidisciplinary professional association with over 3,000 individual members worldwide, comprised of scientists and practitioners, all with a common interest in enhancing the performance, effectiveness, and safety of systems with which humans interact through the design of those systems' user interfaces to optimally fit humans' physical and cognitive capabilities. The Society and its members strongly believe that investment in scientific research serves as an important driver for innovation and the economy, national security, and maintaining American global competitiveness. Funding for fundamental research at NSF to address national and societal needs will be critical as Congress looks at legislation to ensure the U.S. remains the global leader in advancing science and technology. We thank the subcommittee for its longtime recognition of the value of scientific and engineering research and its contribution to innovation in the U.S.

#### HUMAN FACTORS AND ERGONOMICS AT THE NATIONAL SCIENCE FOUNDATION

HFES and its members strongly believe that Federal investment in NSF will have a direct and positive impact on the U.S. economy, national security, and the health and well-being of Americans. It is for these reasons that HFES supports robust funding for the Foundation to encourage further advancements in the fields of technology, education, defense, and healthcare, among others. In the past, NSF funding for HF/E basic research has strengthened interdisciplinary partnerships allowing for a multilateral approach to technology research and development, including the human and user perspectives. The benefits of this research are not confined to one field but rather span across a range of disciplines to increase understanding of the way humans interact with technology, as well as with each other.

In particular, NSF funds HF/E research to:

- Better understand and improve the effectiveness of how individuals, groups, organizations, and society make decisions.<sup>1</sup>
- Improve understanding of the relationship between science and engineering, technology, and society, in order to advance the adoption and use of technology.<sup>2</sup>
- Gain a better understanding of how humans and computers interact to ensure the development of new devices or environments that empower the user.<sup>3</sup>
- Inform decision making in engineering design, control, and optimization to improve individual engineering components and entire systems.<sup>4</sup>

HF/E research will be especially critical as Congress and the Federal Government work to develop, adopt, and broadly integrate emerging technologies such as artificial intelligence (AI). HFES recognizes that most systems that rely on AI will not operate independently but will be initially programmed and trained by humans to augment, collaborate, or perform specific tasks.

The HF/E profession has conducted detailed research on impacts of AI on human performance, and HFES believes AI must be designed to successfully support human capabilities and overcome known human cognitive limitations, so that humans can understand the actions and intentions of AI. More research is needed to understand how systems can be designed to overcome AI biases, provide transparency and explainability for human use, and provide clear interfaces for human-AI interactions. Interdisciplinary research programs at NSF to address these challenges, such as its Fairness in Artificial Intelligence program<sup>5</sup> and the AI Research Institutes<sup>6</sup>, will be critical to ensuring the U.S. achieves the promised benefits AI can bring to society.

#### THE VALUE OF HUMAN FACTORS AND ERGONOMICS SCIENCE

For over 50 years, the U.S. Federal Government has funded scientists and engineers to explore and better understand the relationship between humans, tech-

<sup>1</sup>Decision, Risk & Management Sciences (DRMS) Program ([http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5423](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5423)).

<sup>2</sup>Science and Technology Studies (STS) Program ([https://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=505697](https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505697)).

<sup>3</sup>Human Centered Computing (HCC) Program ([https://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=504958](https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504958)).

<sup>4</sup>Operation and Design Cluster ([http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=13473](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13473)).

<sup>5</sup>NSF Program on Fairness in Artificial Intelligence in Collaboration with Amazon (FAI) ([https://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=505651](https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505651)).

<sup>6</sup>Artificial Intelligence Research Institutes ([https://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=505686](https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505686)).

nology, and the environment. Originally stemming from urgent needs to improve the performance of humans using complex systems such as aircraft during World War II, the field of human factors and ergonomics (HF/E) works to develop safe, effective, and practical human use of technology. HF/E does this by developing scientific approaches for understanding this complex interface, also known as “human-systems integration.” Today, HF/E is applied to fields as diverse as transportation, architecture, environmental design, consumer products, electronics and computers, energy systems, medical devices, manufacturing, office automation, organizational design and management, aging, farming, health, sports and recreation, oil field operations, mining, forensics, and education.

With increasing reliance by Federal agencies and the private sector on technology-aided decision-making, HF/E is vital to effectively achieving our National objectives. While a large proportion of HF/E research exists at the intersection of science and practice—that is, HF/E is often viewed more at the “applied” end of the science continuum—the field also contributes to advancing “fundamental” scientific understanding of the interface between human decision-making, engineering, design, technology, and the world around us through research funded by NSF. The reach of HF/E is profound, touching nearly all aspects of human life from the health care sector to the ways we travel, to the hand-held devices we use every day.

#### CONCLUSION

Given NSF’s critical role in supporting fundamental research and education across science and engineering disciplines, HFES supports an overall FY 2023 NSF budget of at least \$11 billion. This investment funds important research studies, enabling an evidence-base, methodology, and measurements for improving organizational function, performance, and design across sectors and disciplines.

On behalf of HFES, we would like to thank you for the opportunity to provide this testimony. Please do not hesitate to contact us should you have any questions about HFES or HF/E research. HFES truly appreciates the subcommittee’s long history of support for scientific research and innovation.

[This statement was submitted by Steven C. Kemp, CAE, Executive Director]

#### PREPARED STATEMENT OF HUMANE SOCIETY LEGISLATIVE FUND AND THE HUMANE SOCIETY OF THE UNITED STATES

Chair Shaheen, Ranking Member Moran, and Members of the subcommittee, thank you for this opportunity to offer testimony on matters of importance to our organizations and to our millions of supporters. We thank you for the support and investment in animal protection in the subcommittee’s Fiscal Year 2022 appropriations bill. We appreciate your continued consideration for the following requests in the Fiscal Year 2023 Department of Commerce, Justice, Science, and Related Agencies budget:

- NOAA North Atlantic Right Whales: at least \$26 million
- NOAA Protected Resources: increase of at least \$30 million
- NOAA John H. Prescott Marine Mammal Rescue Assistance Grant Program: \$8 million
- Marine Mammal Commission: \$6 million
- DOJ Animal Welfare Act enforcement: report language for DOJ–USDA MOU

#### NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION—NORTH ATLANTIC RIGHT WHALE CONSERVATION

We, along with coalition partners, request at least \$26 million in the National Oceanic and Atmospheric Administration (NOAA) budget to support the recovery of the critically endangered North Atlantic right whale, which is plunging ever closer to extinction due to fishing gear entanglements and vessel strikes. Recently updated estimates for the species indicate that from January 2019 to January 2020, the population plummeted by eight percent to 336 individuals—a rate of decline forty times the legal limit. This is the lowest assessment in decades.

Within the \$26 million for North Atlantic right whale conservation, we request the following allocations:

Within Marine Mammals, Sea Turtles, and Other Species

- \$12,000,000 for the continued development and implementation of new rules from NOAA aimed at reducing the mortality rate of North Atlantic right whales by vessel strikes, fishing gear entanglements, and other threats to their survival. This funding should also be used for regulatory and management support to both reduce vessel-strike risk in high-traffic areas and to facilitate a transi-

tion to commercial fishing gear known to reduce gear entanglement risk with a strong focus on fishermen education and outreach.

- \$8,000,000 to expand the pilot program to refine and field test innovative fishing gear technologies designed to reduce North Atlantic right whale entanglements. As determined by the agency's needs, some funding within this amount should be directed towards the development of geolocation technologies and mapping. Lastly, research on how to lower the cost of new gear technologies should also be included.
- \$3,000,000 for: (1) Enforcement activities of offshore lobster fisheries in Massachusetts and Maine, related to personnel and vessel needs, monitoring, gear removal, and surveys (2) Enforcement activities of current and future vessel speed restrictions.
- \$2,000,000 for surveys and monitoring, including underwater acoustic gliders, of North Atlantic right whales in Atlantic coastal waters.
- \$1,000,000 for disentanglement, stranding response, and necropsy activities.
- 3 percent cap on the amount of funds NOAA can use internally.

#### Within Fisheries Data Collections, Surveys, and Assessments

\$300,000 to continue conducting the continuous plankton recorder survey that will enhance our understanding of the distribution and movement of *Calanus* spp., the primary prey of the North Atlantic right whale.

We thank the subcommittee for its continued commitment to ensuring the survival of the critically endangered North Atlantic right whale.

#### NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION—OFFICE OF PROTECTED RESOURCES

In the last few years, we have seen other imperiled marine species reach crisis status. The Southern Resident killer whale population is at its lowest levels in 20 years. The number of vaquitas—the smallest and most endangered marine mammal on Earth—has plummeted by 90 percent in recent years; scientists estimate that a mere 10 vaquitas might remain in the world. Without bold, immediate action, their extinction is virtually assured. Each of these tragic declines underscores the danger of being complacent and failing to provide robust funding to the National Marine Fisheries Service. Thus, we recommend a \$30 million increase in funding to the agency's protected resources budget to prevent any more of our amazing marine species slipping irrevocably to extinction.

#### NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION—JOHN H. PRESCOTT MARINE MAMMAL RESCUE ASSISTANCE GRANT PROGRAM

We request \$8 million in FY23 for the John H. Prescott Marine Mammal Rescue Assistance Grant Program, an increase from \$4 million in FY22. The Prescott program provides competitive grants to marine mammal stranding organizations to rescue, rehabilitate, or investigate sick, injured, or distressed live marine mammals, and to investigate and determine the cause of death or injury to these animals. The program is the sole source of Federal funding for the National Marine Mammal Stranding Network, comprising more than 90 member organizations in 26 States, the District of Columbia, two territories, and two Tribes. Funds are awarded only if at least 25 percent of non-federal matching funds are also committed, and no single award may exceed \$100,000. To date, NOAA has issued 794 Prescott program awards to the National stranding network, totaling over \$67 million in Federal funding and over \$28 million in non-federal funding.

#### MARINE MAMMAL COMMISSION

For FY23, we urge that the Marine Mammal Commission (MMC) budget be increased to \$6 million to help restore the Commission's key oversight role in conserving marine mammals. The U.S. taxpayer contributes just over 1 cent per year to fund this agency and its work. Starting in FY15, the MMC had been flat-funded at \$3.43 million. MMC funding increased slightly to \$3.769 million in FY21, and to \$4.2 million in FY22. Despite that, the agency's actual discretionary funding has declined due to rising fixed costs such as salaries and rent. Providing \$6 million in funding for FY23 would enable the MMC to fulfill its obligations under the Marine Mammal Protection Act.

#### DEPARTMENT OF JUSTICE—ANIMAL WELFARE ACT ENFORCEMENT

The Animal Welfare Act (AWA) sets basic standards of care for animals used in research, exhibition, transport, and sales. This law is crucial to protecting over a million animals from inhumane care and treatment. Yet many dealers, exhibitors,



and research facilities are getting away with egregious abuses. Enforcement of the AWA must be strengthened because the U.S. Department of Agriculture's (USDA) enforcement actions have not been frequent or strong enough to stop those engaging in abuse or to deter potential violators of the law. Without vigorous enforcement of this important law, there is no deterrent for violators and animals will continue to suffer. To keep up with the sheer number of animals in need of AWA protection, the USDA needs help.

The Department of Justice's Environment and Natural Resources Division (DOJ) already works tirelessly to ensure that full effect is given to the Federal statutes and enforcement regimes that provide for the humane treatment of captive, farmed, and companion animals across the United States—including sections of the AWA. However, to provide the Department with additional tools to take action against dealers, exhibitors, and research facilities that violate the AWA, we encourage the inclusion of report language calling on USDA and DOJ to develop a Memorandum of Understanding to facilitate a partnership in enforcing the AWA, and to create a formalized structure for USDA to partner and share information on AWA violators with DOJ.

As such, we urge the inclusion of this report language: The Committee urges the Department to enter into a memorandum of understanding with the Secretary of Agriculture to encourage greater collaboration on Animal Welfare Act enforcement and ensure that the Department of Justice has access to evidence needed to initiate cases.

[This statement was submitted by Jocelyn Ziemian, Senior Legislative Specialist, Humane Society Legislative Fund]

---

#### PREPARED STATEMENT OF INDIGENOUS CANNABIS COALITION

Dear Chairman Shaheen and Ranking Committee Members,

As Tribal leaders, Tribal citizens, organizations and cannabis advocates, we publicly endorse the Fiscal Year 2023 appropriations legislation for the Commerce Justice and Science subcommittee and the support for Tribal sovereignty and the implementation of Indian treaty rights and self-determination in cannabis commerce. We believe that responsible regulation and control of marijuana by Tribes in their respective homelands is beneficial to society and the public's health, and provides safer alternatives to the illicit cartel economies that occur in States that continue the practice of criminalizing black and brown communities with failed marijuana policies.

We support the 2023 appropriations bill's new policy language that says no Federal funds appropriated to agencies within Interior, Justice Department, Bureau of Indian Affairs or Office of Justice Services could be used to "enforce Federal laws criminalizing the use, distribution, possession, or cultivation of marijuana against any person engaged in the use, distribution, possession, or cultivation of marijuana in Indian country" where such activity is authorized, we are highly concerned that the new contingencies create further discriminatory practices and fails to protect Tribal sovereignty.

We ask that the members of this committee pass this House measure specifically regarding provisions on the Federal enforcement of cannabis on Indian lands. The language reflects Tribal sovereignty for all 574 federally recognized Tribes and does not allow for State law to supersede Tribal law regarding trade and commerce in cannabis, an imperative aspect of upholding the trust responsibility and uplifting self-determination.

[This statement was submitted by Mary Jane Oatman, Executive Director (Nez Perce/Delaware) Kamiah, ID]

---

#### PREPARED STATEMENT OF INSIGHTS ASSOCIATION

On behalf of the Insights Association (IA), the leading nonprofit trade association for the market research and data analytics industry, I am respectfully submitting testimony on the U.S. Census Bureau's "Ask U.S. Panel" project and the bill language and committee report language we are seeking. The project is presumably funded through the Current Surveys and Programs account, though the President's FY23 budget request makes no mention of it.

IA defends and promotes the indisputable role of insights in driving positive impacts on society and consumers. Our more than 7,000 company and individual members are the world's leading producers of intelligence, analytics and insights defining

the needs, attitudes and behaviors of consumers, organizations and their employees, students and citizens. With that essential understanding, leaders can make intelligent decisions and deploy strategies and tactics to build trust, inspire innovation, realize the full potential of individuals and teams, and successfully create and promote products, services and ideas.

The Ask U.S. Panel is being developed by the Bureau through a cooperative agreement to create a new “nationally representative survey panel for tracking public opinion on a variety of topics of interest to numerous Federal agencies and their partners, and for conducting experimentation on alternative question wording and methodological approaches.” The Bureau intends to spend at least the first 2 years of the project on a pilot before trying to make their panel probability-based in the third year (or later).

This lead time is particularly galling since numerous private sector insights companies and organizations currently provide well-established high-quality probability-based panels to the Federal Government and other customers without needing Federal subsidy and multiple years of development time. At best, the plan for the Census Bureau to develop a probability-based research panel is duplicative. It is also anti-competitive, given these existing panels and the Bureau’s intent to fund an additional insights organization (Research Triangle Institute) to spend years building one, whose intellectual property and technology that organization would get to keep for its own purposes.

Our industry is not the only interest raising concerns about the project. The Department of Commerce’s Office of the Inspector General (OIG) has initiated “an evaluation” of the “award and use of a cooperative agreement to participate in a joint statistical project with Research Triangle Institute, an independent nonprofit institution.” The OIG’s “objective is to determine whether the cooperative agreement was properly authorized, executed, and administered in accordance with relevant laws and regulations.”<sup>1</sup>

Recent Congressional inquiries to the Bureau have been met with reference to this OIG evaluation as the reason for the Bureau’s inability to answer questions. However, if the OIG evaluation somehow prevents the Census Bureau from discussing the Ask U.S. Panel, should it not also prevent the continued pursuit of the project?

IA has requested bill language in CJS: *“No funds in this bill may be spent in support or development of the Ask U.S. Panel or any similar effort to develop a survey, opinion or market research service duplicative of private sector offerings.”*

Along with the prohibition on funds, IA also requested committee report language: *“Ask U.S. Panel Survey. The Committee is concerned about the lack of transparency related to the Census Bureau’s plans for implementation of the Ask U.S. Panel Survey, particularly given the lack of congressional authorization and the expanding scope of the project since it was initially announced. The Committee also is concerned about the use of taxpayer dollars for the development of a panel survey given the wide range of options that currently exist in the private sector for these types of activities. The Committee directs the Census Bureau to provide a report to the Committee within 60 days about the panel’s methodology, data collection processes, implementation, and procurement strategy to allow the Committee to evaluate the project’s use of Federal resources.”*

IA’s concerns include:

1. *Federal agencies can (and already do) purchase such services from the private sector.*—The ultimate goal of the Ask U.S. Panel project—to create a probability-based nationwide representative survey panel for tracking public opinion—is already being fulfilled utilizing numerous non-governmental sources. Insights providers such as Dynata, Gallup, Ipsos, NORC at the University of Chicago, SSRS, the University of Southern California, and others maintain probability-based research panels that could meet any needs of the Bureau or other Federal agencies. Most of them already successfully provide such services to Federal agency clients, including the Bureau itself. Plenty of other insights companies and organizations with panels could also adapt to provide probability-based panels if requested.

Since these insights providers offer their services commercially on the open market, the Census Bureau could acquire such panel research services with full and open competitions. So why does the Bureau feel the need to disregard the availability of ready commercial alternatives and develop its own panel?

<sup>1</sup>Evaluation of the U.S. Census Bureau’s Award and Use of a Cooperative Agreement (#2022–420). January 14, 2022. <https://www.oig.doc.gov/OIGPublications/Evaluation-of-Census-Cooperative-Agreement.pdf>.

2. *The Ask U.S. Panel is an unnecessary financial burden on Federal taxpayers.*—Besides just the cost and expertise involved in establishing this duplicative service, the Census Bureau has not considered the immense expertise in data quality, incentive management and delivery, fraud detection, and privacy and permissions management required to successfully maintain this kind of panel. The Bureau has mentioned no planned procedures to monitor and mitigate attrition of panelists and how it would refresh the pool of available respondents. The multi-year pilot plan suggests they just hope to learn on the fly (an expensive gamble). Why should taxpayers fund the lengthy creation and complicated maintenance of such a duplicative service when it could be simply purchased in the open market for a tiny fraction of the cost?

The Bureau's supporting Statement to OMB estimates that the pilot will cost a mere \$3.5 million,<sup>2</sup> but this hides the true cost of the overall project, since actually building the panel, which the Bureau doesn't propose to even do until at least year three, would cost a massively greater amount. NORC estimates it would cost at least \$25 million to build this kind of online panel, with annual maintenance costing as much as \$2 million per year.<sup>3</sup> Meanwhile, NORC estimates that studies from pre-existing probability-based panel providers could "be purchased for as little as \$100,000."<sup>4</sup>

3. *The Federal Government should not compete against the private sector.*—According to the original Notice of Federal Funding,<sup>5</sup> the Ask U.S. Panel would be "open to government and other non-profit researchers and policy makers," meaning that the Bureau's proposed panel itself could compete directly with private sector insights providers.

Since 1955, Federal agencies have been charged with avoiding "activities conducted by the Government that provide services or products for its own use which could be procured from private enterprise through ordinary business channels".<sup>6</sup> The policy required the head of an agency to make any exception to such restrictions "only where it is clearly demonstrated . . . that it is not in the public interest to procure such product or service from private enterprise." This policy was reiterated by every Administration following, including in OMB Circular A-76<sup>7</sup> and other policies specifically requiring competitive sourcing.

The Census Bureau implies in a supporting Statement to OMB that it has conducted a competitive sourcing analysis, but in fact has only checked to see if the data to be collected in the pilot project stage is duplicative of other Federal Government agencies.<sup>8</sup> That is no substitute for an actual competitive sourcing analysis.

4. *Government should not subsidize a private entity to develop (and keep for its own use) duplicative intellectual property.*—By using a cooperative agreement, under which the intellectual property (IP) developed is owned not by the Federal Government but by the awardee, the Census Bureau is using taxpayer funds to establish a panel that is free to be used by a private entity for its own work long after the contracted work is complete. Per the Department of Commerce Financial Assistance Standard Terms and Conditions (December 26, 2014, §D.03.a), the awardee "owns any work produced or purchased under a Federal award."

How could the best or most cost-effective way of pursuing the Census Bureau's research goals involve directly subsidizing a private entity to spend years developing a service already offered by other private entities?

#### CONCLUSION

We applaud the Census Bureau for their ongoing innovation and dedication to serve as the leading source of the highest quality and most representative data for

<sup>2</sup>Page 17. Supporting Statement Part A Ask US Pilot\_4\_4—22.docx [https://www.reginfo.gov/public/do/PRAViewDocument?ref\\_nbr=202202-0607-008](https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=202202-0607-008).

<sup>3</sup>NORC comments. February 22, 2022. Page 3. <https://www.regulations.gov/comment/USBC-2021-0024-0004>.

<sup>4</sup>NORC comments. February 22, 2022. Page 2. <https://www.regulations.gov/comment/USBC-2021-0024-0004>.

<sup>5</sup>CENSUS-ADR-ADRM-2020-2006579. U.S. Census Bureau Research and Methodology Directorate Cooperative Agreements. Department of Commerce. Page 10. <https://www.grants.gov/web/grants/search-grants.html?keywords=CENSUS-ADR-ADRM-2020-2006579>.

<sup>6</sup>Bureau of the Budget Bulletin 55-4. January 15, 1955. [https://www.governmentcompetition.org/wp-content/uploads/2018/11/Bureauof\\_the\\_Budget\\_Bulletin\\_55-4\\_January\\_15\\_1955.pdf](https://www.governmentcompetition.org/wp-content/uploads/2018/11/Bureauof_the_Budget_Bulletin_55-4_January_15_1955.pdf).

<sup>7</sup><https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A76/a076.pdf>.

<sup>8</sup>Page 5. Supporting Statement Part A Ask US Pilot\_4\_4—22.docx [https://www.reginfo.gov/public/do/PRAViewDocument?ref\\_nbr=202202-0607-008](https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=202202-0607-008).

America's people and economy. The Insights Association dedicates much of our daily advocacy to supporting the decennial census and the American Community Survey (ACS), the two essential Federal data sources underpinning statistical sampling/representativeness in almost all U.S. research studies.

The insights industry is no stranger to the importance of the Bureau and its core work; we want the Bureau to focus on that work and do it well.

IA remains gravely concerned about the shaky rationale and lack of need for the Ask U.S. Panel given numerous commercially-viable alternatives. The Census Bureau should be using the competitive marketplace of available insights services to acquire pre-existing research services on an as-needed basis, which would reduce public burden, save years of development time, and ultimately cost taxpayers a lot less money.

Thank you for allowing IA to testify on the Ask U.S. Panel project, an important under-the-radar issue in the FY23 CJS Appropriations legislation.

[This statement was submitted by Howard Fienberg, Senior VP Advocacy]

#### PREPARED STATEMENT OF INTERNATIONAL FUND FOR ANIMAL WELFARE

Chairwoman Shaheen, Ranking Member Moran, and Members of the subcommittee:

Thank you for the opportunity to offer testimony on the FY23 Commerce, Justice, Science, and Related Agencies Appropriations Act. The International Fund for Animal Welfare (IFAW) has 15 offices globally and works in more than 40 countries around the world. IFAW takes a holistic approach to innovating solutions for tough conservation challenges like conflicts between humans and wildlife, and illegal wildlife trafficking. IFAW's Marine Mammal Rescue Team, based on Cape Cod, Massachusetts, has also served as a first line of defense for stranded marine mammals in distress for more than 20 years. Our team investigates incidents involving human interactions with marine mammals, and, rescues dolphins, whales, seals, and other marine mammals, releasing them, whenever possible, back into the wild.

IFAW is grateful for this subcommittee's championship of strong marine conservation and research funding for the current fiscal year (FY22), and requests additional support for these programs in FY23 to meet urgent and growing needs.

Our oceans are in trouble. From the depletion of fish stocks to climate change, increasing ocean temperatures, noise pollution, and acidification, human activity threatens marine ecosystems that are vital to the health of our oceans and to all life on earth. Marine mammals are further impacted by changes that are occurring rapidly, such as increases in offshore wind energy and aquaculture, potentially exacerbating existing threats.

Fortunately, just as human activities are responsible for many of the current ocean threats, it is within our power to change our shared trajectory, and this subcommittee has jurisdiction over critical programs that can help to do just that. Given the severity of the challenges we face, IFAW respectfully asks the subcommittee to exert its leadership in order to reverse the alarming and interrelated climate and biodiversity emergencies by making substantial increases in funding for the important marine conservation programs within your purview. Doing so will help to protect ocean biodiversity, and will in turn have significant positive effects, including promoting healthy fish stocks, fighting climate change, and safeguarding human health and wellbeing.

For FY23, IFAW requests the following direction from the subcommittee within the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service Marine Mammals, Sea Turtles, and Other Species conservation programs:

#### NORTH ATLANTIC RIGHT WHALES: \$26.3 MILLION

Recent population surveys have found a decline in North Atlantic right whale (NARW) populations, and suggest that there are currently fewer than 340 individuals remaining. Urgent action must be taken NOW in order to save these iconic animals from extinction.

The NARW faces ongoing threats from fishing gear entanglement and vessel strikes, amongst other stressors. It is imperative that we continue to provide significant funding to conserve this imperiled species, better understand how it interacts with commercial fisheries and vessel traffic, and if needed, support the fishing industry in complying with last year's Atlantic Large Whale Take Reduction Plan (ALWTRP) rule.

Critical habitat for right whales frequently overlaps with commercial fishing grounds and areas of high vessel traffic, leaving the whales vulnerable to vessel col-

lisions and fishing gear entanglements, the two leading causes of injury and death to the species. Whales that survive these dangers are often subject to chronic stress and reproductive failure, further inhibiting the species' ability to recover. Due to human-caused threats, the population's mortality rate still exceeds the birth rate by a ratio of three to two.

By providing funding for NARW research and prioritizing cooperative research with fishermen, Congress can help generate innovative and long-term solutions for saving this endangered species—while preserving the essential economic activity of commercial fishing and shipping.

- \$12,000,000 for the continued development and implementation of new rules from NOAA to reduce mortality of NARWs from vessel strikes, fishing gear entanglements, and other threats to their survival. This funding should also be used to provide regulatory and management support to both reduce vessel-strike risk in high-traffic areas and to facilitate a transition to commercial fishing gear known to reduce gear entanglement risk, with a strong focus on fishermen education and outreach;
- \$8,000,000 to expand the existing pilot program to field test and refine innovative fishing gear technologies intended to reduce NARW entanglements. As determined by the agency's needs, some funding within this amount should be directed towards the development of gear geolocation technologies and toward strategies for lowering the cost of adoption of new gear technologies;
- \$3,000,000 for enforcement of current and future vessel speed restrictions and offshore lobster fisheries in Massachusetts and Maine, related to personnel and vessel needs, monitoring, gear removal, and surveys;
- \$2,000,000 for surveys and monitoring, including but not limited to underwater acoustic detection technologies, of NARW in Atlantic coastal waters;
- \$1,000,000 for disentanglement, stranding response, and necropsy activities;
- 3% cap on the amount of funds NOAA can use internally.

We also request an additional \$300,000 within Fisheries Data Collections, Surveys, and Assessment in order to continue conducting the continuous plankton recorder survey that will enhance our understanding of the distribution and movement of *Calanus finmarchicus*, the primary prey of the NARW.

JOHN H. PRESCOTT MARINE MAMMAL RESCUE ASSISTANCE GRANT PROGRAM:  
\$15 MILLION

The Prescott Grant Program provides grants or cooperative agreements to eligible stranding network participants for the recovery and treatment of stranded marine mammals; the collection of data from living or dead stranded marine mammals; and for facility upgrades, operation costs, and staffing needs directly related to the recovery and treatment of stranded marine mammals and the collection of data from living or dead stranded marine mammals. In FY22, the Committee provided \$5 million for this important program. This year IFAW is requesting a significant increase to \$15 million.

The National Marine Mammal Health and Stranding Network provides critical services that allow NOAA to fulfil its duties under the Marine Mammal Protection Act (MMPA). Under the MMPA, the Secretary is responsible for the establishment of the Marine Mammal Health and Stranding Response Program (MMHSRP), composed of marine mammal experts including stranding response programs, scientists, and veterinarians who are charged with data collection on the health of marine mammals, observed trends of wild populations, and effective responses to unusual mortality events (UMEs) to better inform the collective management and conservation of marine mammal species. Without the support and efforts of stranding organizations who are fundamental to the collection and reporting of this data, NOAA's understanding of marine mammal health trends would be fatally flawed, putting NOAA at risk of violation of the MMPA. In addition, responders provide a crucial service that supports public safety, a timely and humane response, and life-saving care for marine mammals—including a variety of cetaceans and pinnipeds and endangered and threatened species—along the whole of the United States coast.

As threats to marine mammals are increasing, the financial constraints on the stranding network are also going up. It is estimated that for every entangled whale that is reported, another 10 are unseen. As a result of the COVID-19 pandemic, supply chain shortages and increased shipping costs are driving up prices in a realm that is already expensive. The provision of high-quality food and medication is key to the successful care and rehabilitation of all marine mammals in rehabilitation. Depending on the case, the testing necessary to reach a diagnosis for a patient can include radiology or advanced imaging (such as MRI or CT scans) in addition to the baseline diagnostics of complete blood counts, serum chemistry profiles, parasite

screens, and microbiology. Members maintain fleets of rescue vehicles to safely transport patients, and a hospital in which to care for them. The hospitals include pens with enclosed pools through which water is circulated. That water is filtered through a sophisticated system of filters before being sanitized and returned to the patient pools. This is key to maintaining good health for the patients, and the approach is one that importantly considers the environment in that water is conserved by this recirculation process.

Given the condition of our ocean and the threats to marine mammals currently, and in the future, reinforcing and appropriately building out the MMHSRP for timely, effective response in the interest of public service, animal welfare, disease surveillance, science and conservation will likely require a Federal investment of at least \$30 million. For FY23, IFAW respectfully asks for a significant investment of \$15 million in the Prescott Grant Program toward that total figure.

#### UNUSUAL/LARGE WHALE RESPONSE FUNDS: \$1 MILLION

A recent increase in large whale strandings along the Northeastern coast of the US has led the Federal Government to declare three separate, concurrent UMEs for minke whales, humpback whales, and the endangered NARW, respectively to further assess these mortalities. The primary cause of the NARW UME is human interaction, including vessel strikes and entanglements, and a number of live entangled NARW have also been included in the event. As fishing ropes have gotten stronger, entanglements have become more severe and it is increasingly more difficult for whales to break or shed the gear themselves. The likelihood of entanglement has also increased as right whale habitat and fisheries increasingly overlap due to changing ecosystems and climate change. Entanglement can lead to reductions in feeding capability, swimming efficiency, nutritional status, and fecundity and, in many cases, results in death. In fact, between 2010 and 2018, entanglements caused 72% of known-cause right whale deaths. Furthermore, observed deaths due to entanglement alone have exceeded the potential biological removal (PBR) levels, for both right and humpback whales in the Northwest Atlantic for nearly two decades, meaning that these human impacts are simply unsustainable for this population and have been ongoing for far too long. With the NARW on the brink of extinction, it is critical that action be taken now to address entanglements or this species will be lost forever.

Unfortunately, despite the importance of conducting thorough exams and necropsies on these critical cases and the technical expertise of stranding networks, effective large whale stranding response has become increasingly difficult. An increase in dead whale events, a lack of resources, including adequate staffing, necessary heavy equipment, appropriate carcass landing sites, and disposal options, as well as the expense associated with aerial surveys to locate carcasses, on-water towing, over-land hauling, heavy equipment hire, disposal and sample processing are critical limiting factors. While limited Federal funding is available for response to specific UME events, resources often are not sufficient to respond to every event sufficiently or for non-UME whale species.

The cost of a single stranding event involving a large whale can be as much as \$50,000 or more, making it difficult for responders to meet not only our country's legal conservation obligation to these large whales, but also a moral animal welfare obligation by expanding detection and mitigation of anthropogenic threats to these federally protected animals. IFAW therefore requests \$1 million for FY23 to be directed specifically to unusual or large whale stranding responses.

#### CONCLUSION

In closing, thank you for the opportunity to share IFAW's funding priorities to promote conservation in the FY2023 Commerce, Science, Justice and Related Agencies Appropriations Act. Our oceans and native marine species are more than our National heritage; they are essential aspects of the healthy ecosystems on which we all rely. We appreciate the continued leadership of this subcommittee on conservation efforts. With your support, we can reverse the tide of extinction, protect human health, and promote a better future for generations of wildlife lovers and Americans yet to come. Thank you.

[This statement was submitted by Kate Wall, Senior Legislative Manager]

#### PREPARED STATEMENT OF JAMESTOWN S'KLALLAM TRIBE

On behalf of the Jamestown S'Klallam Tribe, I am pleased to submit this written testimony on our funding priorities and requests for the Fiscal Year 2023 for the

Department of Justice and the Department of Commerce Budgets. Our Budget Request endorses the requests and recommendations of our international, regional, and national partners, the Pacific Salmon Commission, the Northwest Indian Fisheries Commission, the Affiliated Tribes of Northwest Indians and the National Congress of American Indians.

The moral compass of our Nation is expressed annually when Congress exercises its authority to appropriate funding to support certain programs and services. The Constitution, Treaties, Executive Orders, and numerous court decisions established the legal and moral foundation for prioritizing funding for American Indian/Alaska Natives (AI/AN). Yet, as documented by two Reports that were issued by the U.S. Civil Rights Commission, a quiet crisis of unfulfilled Federal obligations has persisted for decades across Indian Country and has left our Tribal citizens and communities vulnerable to the current public health crisis and economic devastation. The COVID-19 pandemic's disproportionate impact on AI/AN resulted in the highest rates of infection, hospitalizations, and deaths compared to any other racial and ethnic group in the U.S. And these harrowing statistics are likely much worse given the lack of accurate, reliable, quality data on AI/AN.

The Biden Administration has committed to respect Tribal sovereignty, as well as, uphold the trust responsibility, strengthen the Nation-to-Nation relationship, and empower Tribal communities through Self-Governance and Self-Determination to make their own decisions and govern their own communities. We urge Congress to follow suit and pass a Federal budget for AI/AN that is reflective of the solemn promises made by the U.S. We have proven time and again that when you invest in Jamestown and empower our Tribe to exercise our inherent right of Self-Governance we become strong economic development drivers for our community and the surrounding region by growing our resource base and creating jobs. Tribes are a critical governmental partner in our Nation's quest to "Build Back Better".

#### UPHOLD TRUST AND TREATY OBLIGATIONS

1. Provide Recurring Base Funding for Tribal Programs
2. require All Agencies to Provide an Annual Estimate of the Costs to Fully Fund Tribal Programs & Improve Data Collection to Support Tribal Funding Requests
3. Provide Mandatory Funding for Tribal Programs and Services

#### TRIBAL REQUESTS AND RECOMMENDATIONS—DEPARTMENT OF COMMERCE

*(Support the FY 2022 request of the Pacific Salmon Commission)*

1. Provide \$110 million for the Pacific Coastal Salmon Recovery Fund (NOAA/NMFS)
2. Provide \$43.5 million for the Pacific Salmon Treaty
3. Provide \$26.5 million for the Mitchell Act Hatchery Program (NOAA/NMFS)

#### NATIONAL REQUESTS AND RECOMMENDATIONS—DEPARTMENT OF JUSTICE

1. Fully Fund the Tribal Law and Order Act (TLOA)
2. Fully Fund Violence Against Women Act (VAWA)
3. Office of Justice Programs (OJP)—Create a Ten Percent (10%) Tribal Set-Aside for Tribes
4. Victims of Crime Act Funding—Provide a five percent (5%) set aside
5. Fund COPS Program—\$52 million

#### UPHOLD TRUST & TREATY OBLIGATIONS

##### *1. Provide Recurring Base Funding for Tribal Programs*

Stable base funding at sufficient levels is essential for viable and effective Tribal programs and services. Grant funding is highly competitive, short-term, the application process is complex, the administrative burden on Tribes is excessive and there are numerous restrictions imposed on how Tribes may use the funds. Simply put, competitive grants create barriers to effectively and efficiently providing programs and services in Tribal communities. Reducing Administrative inefficiencies would improve program effectiveness and increase the ability of Tribes to leverage the Federal dollar. Base funding coupled with more flexibility allows for more effective and efficient use of the Federal dollar and stronger Tribal governmental systems resulting in strong and self-reliant Tribal citizens and communities.

2. *Require All Agencies to Provide an Annual Estimate of the Costs to Fully Fund Tribal Programs & Improve Data Collection to Support Tribal Funding Requests*

It is incumbent upon the agencies, as trustees, to work collectively with the Tribes to quantify the true unmet need/unfulfilled Federal obligation with credible metrics that will demonstrate an accurate community profile for each Tribe. We need economic statistics and data that establish and drive policy goals, ensure effective implementation of programs and services, measure funding impacts, prove effective and efficient use of funding, and to demonstrate program success. These data metrics, however, are not a “justification” of whether Tribes deserve funding. The Federal obligation does not dissipate if a Tribe performs poorly in any area. Rather, a heightened response by the government is required to identify the challenges that impede a Tribe’s success and to build greater capacity at the local level, if necessary. At this point in time, there is not a system in place that captures the data needed. There is an absence of good data agency-wide with some agencies under the prior Administration having imposed a moratorium on the collection of needs-based data for Tribes. The Federal Government needs to be held accountable and directed to work in partnership with Tribes to collect data that quantifies the true unmet needs/unfulfilled Federal obligations in Indian country.

3. *Provide Mandatory Funding for Tribal Programs and Services*

Trust and Treaty obligations are not discretionary; these are mandatory obligations. On an annual basis Tribes are required to “justify” their budgetary needs and prove to the Federal Government that the Federal investment in Tribal communities is a good investment. We have shown time and again that the Federal investment in Jamestown is a good investment but the narrative about funding needs to be re-written because it is mischaracterizing the Federal trust obligation. Tribes relinquished their lands and resources in exchange for funding and services from the Federal Government in perpetuity and that obligation has not changed with time. It is solidified in our Constitution, Treaties, Executive Orders, and countless legal opinions.

DEPARTMENT OF COMMERCE TRIBAL REQUESTS AND RECOMMENDATIONS

1. *\$110 million for the Pacific Coastal Salmon Recovery Fund (NOAA/NMFS)*

The Pacific Coastal Salmon Recovery fund was established to reverse the decline of salmon and steelhead in the Pacific Northwest. Jamestown uses the funds to restore wild salmon populations and to protect and restore important habitat in the Puget Sound coastal plains. These funds also support our policy development and help to build the technical capacity of our Natural Resource staff charged with planning, implementation, and monitoring recovery activities.

2. *\$43.5 million for the Pacific Salmon Treaty—The U.S. Section estimates that this funding is needed to implement national commitments created by the Treaty (NOAA/NMFS)*

The Pacific Salmon Treaty provides the framework for international collaboration and cooperation to conserve and manage Pacific Salmon. The Pacific Salmon Commission (PSC) works together to establish fishery regimes, develop management recommendations, assess each country’s performance and compliance with the Treaty, and is the forum for all entities to work towards reaching an agreement on mutual fisheries issues.

3. *\$26.5 million for the Mitchell Act Hatchery Program (NOAA/NMFS)*

Jamestown hatchery operations have elevated our success and generated a substantial return on our investment in our aquaculture business. The Tribe operates three hatcheries, two in Washington state and one in Hawaii that produce shellfish and sablefish seeds. The seedlings help to replenish fish and shellfish stocks that have been depleted due to loss of ecosystems and natural habitats. Tribes depend on hatcheries to support Treaty fishing rights, protect our culture and traditional ways of life, and to bolster our commercial fishery operations at home and trade abroad.

NATIONAL REQUESTS AND RECOMMENDATIONS DEPARTMENT OF JUSTICE

1. *Fully Fund the Tribal Law and Order Act (TLOA)*

The Tribal Law and Order Act (TLOA) was an important step in empowering Tribes to better address the unique public safety challenges and reduce the prevalence of violent crime in Indian country. However, effective implementation of TLOA is contingent upon adequate Federal funding for law enforcement, courts, detention facilities and the provision of rehabilitative and preventative services. Full Funding



is needed to effectively and efficiently implement the comprehensive and improved measures that were enacted to address the public safety crisis in Tribal communities.

*2. Fully Fund Violence Against Women Act (VAWA) Including \$5 million for VAWA Special Domestic Violence Criminal Jurisdiction*

The Office on Violence Against Women provides funding for Tribes to address violence against women in their communities. The incidence of domestic violence in Tribal communities is staggering and it is estimated that over 85% of American Indians/Alaska Natives (AI/AN) will be victims of intimate partner violence, stalking and/or sexual violence in their lifetime. Over 90% of these crimes are committed by non-Natives who were outside of the jurisdictional authority of the Tribes. In 2013, Congress afforded AI/AN judicial recourse by reaffirming the inherent sovereign authority of Tribes to exercise Special Domestic Violence Criminal Jurisdiction over Indians and Non-Indians who commit certain crimes in Indian country. Although Congress authorized \$5 million for Tribes to exercise this new jurisdictional authority, in FY2021 only \$4.3 million was appropriated. Tribal justice systems need additional resources to fully implement this authority and we therefore urge Congress to appropriate \$5 million.

*3. Office of Justice Programs (OJP)—Create a 10% Tribal Set-Aside for all (OJP) Programs and Allow for Greater Flexibility*

Jamestown is advocating for a 10% Tribal set-aside from all OJP discretionary programs to provide Tribes base funding and maximum flexibility including the ability to combine DOJ funding with other sources of funding and allow Tribes to develop comprehensive holistic strategies to address public safety and justice in their communities. Stable funding for Tribal public safety and justice is a prerequisite to ensure a safe, healthy, and thriving Tribal community.

*4. Provide a Five Percent (5%) Tribal Set-Aside for Victims of Crime Act Funding*

The Victims of Crime Act funding is financed by fines and penalties imposed on convicted Federal offenders and is the largest source of Federal funding for crime victims. As of 2020, the fund balance was over \$6 billion. Although the fund was established in 1984 and despite the staggering rates of violent crimes in Indian country, Tribes were not authorized as direct recipients of funding until recently. For the past 5 years, Congress has authorized and appropriated a portion of the fund directly to Tribal Nations. We urge Congress to continue to provide a 5% Tribal Set Aside on a recurring annual basis.

*5. Fund the COPS Program—\$52 million*

The COPS Office provides funding to Tribes for law enforcement officers. Since the creation of the COPS program Tribes have hired more than 1700 law enforcement officers. COPS funding is also used for police training, equipment, vehicles, and technology. Although there is a great need for additional law enforcement officers throughout Indian Country, limited resources has hindered Tribe's ability to hire, retain, and train law enforcement officers. It is imperative for the safety of Tribal citizens, Indian communities, and surrounding neighboring communities that a significant increase in funding is allocated for Tribal law enforcement officers and programs.

We thank you for the opportunity to provide this written testimony.

[This statement was submitted by Hon. W. Ron Allen, Tribal Chairman/CEO]

---

PREPARED STATEMENT OF THE JOINT OCEAN COMMISSION INITIATIVE

Chairman Shaheen, Ranking Member Moran, and other members of the subcommittee, we commend your long-standing support for key ocean accounts, and thank you for the opportunity to submit testimony regarding the Fiscal Year 2023 CJS appropriations bill.

Our oceans hold some of our most viable solutions to address climate impacts. These impacts are already exacting an enormous and unacceptable toll on our economy and our communities. The agencies under your charge are required by law to respond to the domestic and global crisis in our oceans, which is inextricably linked to climate. We urge you to ensure that all have sufficient resources to take the necessary actions. You have an opportunity to reassert global leadership that will steer the planet, including the stewardship of our oceans, back to a just, sustainable, and more secure future.

We are encouraged by the Administration proposal for nearly \$7 billion for NOAA, as well as significantly increased support for the National Science Foundation and

NASA's Earth Science Division. However, we ask your committee to critically examine funding for these front-line agencies in FY 2023 to determine if additional resources are required to empower them to confront the unprecedented challenges posed by a rapidly changing climate, including more than a foot of sea level rise by 2050, as recently documented by NOAA.

The Joint Ocean Commission Initiative (Joint Initiative) is a collaborative, bipartisan effort to catalyze action on meaningful ocean policy reform. We believe that providing the necessary funding for core programs at NOAA, NSF, and NASA is an essential investment that will save lives, protect national security, grow our economy, increase justice and equity, mitigate climate change, and preserve the health of our oceans, coasts, and communities.

Ocean and coastal environments are often the first line of defense in promoting resilience and protecting American communities from severe weather events. The oceans are disproportionately impacted by increasing emissions from human activities, but also have immense potential to reduce carbon emissions by as much as 21 percent, and play an instrumental role in mitigating the climate crisis. For example, with adequate funding US agencies can exert global leadership to significantly reduce emissions from marine transportation and ports, which now account for nearly 3 percent of global GHG emissions.

Likewise, your budget should provide funding to encourage action to advance offshore renewable energy to create new clean energy sources and invest in coastal communities. With a clear nexus of climate and oceans, a failure to take decisive action would severely impact the health and livelihoods of millions of Americans, with the largest impact on historically underserved communities, especially Black, Indigenous people of color, and low-income environmental justice communities. Programs should be designed to create just and equitable policy solutions and empower these communities to take decisive action to restore and protect the places they live, work, and recreate.

The Biden Administration's proposed topline budget makes significant strides toward re-establishing NOAA, NSF, and NASA Earth Sciences as premier science agencies that provide the underpinning to address the global climate crisis, while restoring and protecting the Nation's oceans. However, we strongly urge the Committee to consider strategic investments above this level in critical accounts such as ocean acidification, managing fish stocks, addressing the ocean/climate interface for wind power and shipping decarbonization, and empowering oceans and coasts to mitigate climate impacts.

#### RESEARCH, EXPLORATION, AND OBSERVATION

A critical component of America's economic, military, and diplomatic power lies in its ocean research, education, exploration, and observation enterprises. Especially given the pace of observed changes in climate and ocean chemistry, we strongly urge the subcommittee to protect vital ocean science and research capabilities. To make the best, proactive management decisions possible, it is necessary that we first explore, map, observe, and understand our ocean.

Observation and monitoring programs are integral to NOAA's ability to accurately forecast weather, for NOAA's protection and management of America's ocean resources, and for the U.S. military's navigation and extreme weather preparedness. We ask that your committee continue to fully support enhanced capabilities for observation and monitoring by NOAA's Office of Oceanic and Atmospheric Research (OAR) and NOAA's Sustained Ocean Observations and Monitoring Program. We also suggest the committee continue its support for the Ocean Exploration program to maintain the pace, scope, and efficiency of exploration. It is also critical to fund climate research at OAR. This is essential to promote high-priority climate science that advances our understanding of Earth's climate system.

Likewise, we support the FY 2023 proposed increase in NSF's overall budget to \$10.5 billion, recognizing that developing sufficient capabilities to sustain ocean-based economies and protect our coasts and coastal communities from natural and man-made hazards will require a sustained investment in the geosciences, essential to economic development and the safety and security of our citizens. NSF's investment in the geosciences—which includes ocean sciences—has spurred innovations, addressed salient national and global challenges, galvanized new economic sectors, generated countless jobs, and led to the development and implementation of advanced technologies.

We are highly supportive of the proposed increase in NASA's Earth science funding for climate and weather monitoring and measurement. The recommended \$2.4 billion for Earth-observing satellites and related research will enhance NASA's abil-

ity to improve national capabilities to predict climate, weather, and natural hazards, and better manage resources.

#### EDUCATION AND EXTENSION

The National Sea Grant College Program works to better research, understand, conserve, and utilize America's coastal resources, making it critical to coastal States, communities, and economies. Given Sea Grant's critical importance, we urge this committee to strongly support Sea Grant in FY 2023, including funding for marine aquaculture education and extension programming.

NOAA's environmental education and ocean stewardship programs increase essential access to STEM education and cultivate environmental stewardship. We request that the committee continue its support for Bay-Watershed Education and Training (B-WET) programs and Environmental Literacy Programs (ELP). These vital programs increase equity through inspiring and educating future ocean leaders who represent all Americans.

#### RESILIENCE AND SECURITY

Sufficient funding must be dedicated to strengthening the resiliency of coastal communities and ocean ecosystems to combat dramatic, climate driven changes in our oceans. We ask this subcommittee to continue leading on ocean and coastal security by funding over historical levels the National Ocean and Coastal Security Fund (NOCSF) in FY 2023. We further recommend continued support for regional data portals used to support critical ocean partnerships that encourage collaboration and data sharing on the regional scale. In addition, we recommend continued support of Coastal Management Grants and the National Estuarine Research Reserve System, which preserve millions of acres of coastal habitat, buffering against rising seas and storm events.

NOAA's National Ocean Service (NOS) is a front-line agency for sustained resilience and security. We strongly recommend that NOS be adequately funded commensurate with its sobering responsibilities. NOS also supports the Integrated Ocean Observing System (IOOS), which collects and distributes data that is used at the National, regional, State, and local levels. We recommend you strongly support IOOS to meet the safety, economic and stewardship needs of the Nation.

The NOS also administers the Office of National Marine Sanctuaries and key restoration projects that dramatically enhance the resilience of coastal communities and ocean environments. National Marine Sanctuaries require continued congressional support to protect and steward special marine spaces, especially in the face of climate change, and develop the next generation of ocean stewards.

#### OCEAN ACIDIFICATION

Ocean acidification is evident along every shoreline and is impacting economies worldwide. By changing the chemistry of seawater, ocean acidification endangers shellfish, corals, and other marine life and disrupts marine food webs. Ocean acidification poses a fundamental risk to fisheries and aquaculture industries and to human health, as well as a potentially catastrophic risk to our economy. We strongly urge you to increase funding for NOAA's Integrated Ocean Acidification program to support critical research, monitoring, education, and outreach. The potential devastating impact from ocean acidification requires an unequivocal response to prevent catastrophe.

#### SUSTAINABLE FISHERIES & AQUACULTURE

Fishing is a cornerstone of the ocean economy and an important aspect of American history and culture. Since 1976, we have seen tremendous progress toward creating and maintaining sustainable fisheries domestically and internationally, in part due to your subcommittee's commitment to scientifically-sound fishery management. Aquaculture is also a growing aspect of America's seafood economy. We are encouraged by NOAA's strong support for sustainable, environmentally sound aquaculture.

However, America's seafood industry is currently being challenged by changing ocean conditions, shifts in historic stock distributions, and increasingly complex data requirements. NOAA Fisheries requires elevated funding to address these challenges. We thank you for responding to our testimony from year's past and many other organizations, increasing funding for the NOAA Fisheries to over \$1 billion. We ask you to continue this trend in fiscal Year 2023, to fully implement the Magnuson-Stevens Fishery Conservation and Management Act. We also urge you to support full implementation of the U.S. Seafood Import Monitoring Program to address

IUU fishing and other initiatives to spread sustainable fisheries management globally. Further, we recommend funding the research and expansion of aquaculture to increase sustainable American seafood, and provide a low-carbon source of protein for the planet's projected 10 billion people. These initiatives will not only increase sustainability but also create quality jobs for coastal Americans.

#### CONCLUDING REMARKS

The Joint Initiative greatly appreciates your commitment to addressing the challenges of our maritime nation, and to the ocean-climate nexus, so critical to the future of our blue planet. We appreciate your consideration of our fiscal Year 2023 budget request. We will continue to track progress on key ocean and coastal programs and accounts in fiscal Year 2023 and beyond, and we stand ready to assist you in advancing positive and lasting changes in the way we manage our Nation's oceans and coasts.

*Joint Initiative Leadership Council Members*  
The Honorable Christine Todd Whitman, Co-Chair

Maite Arce | Frances Beinecke | Don Boesch The Honorable Norm Dicks | Quenton Dokken | Robert Gagorian | Sherri Goodman | Scott Gudes | The Honorable Conrad Lautenbacher | Margaret Leinen | Julie Packard | The Honorable Leon Panetta | John Pappalardo | The Honorable Pietro Parravano | Queen Quet | Randy Repass | Larry Robinson | Andrew Rosenberg Paul Sandifer

[This statement was submitted by Christine Todd Whitman and Leon Panetta]

---

#### PREPARED STATEMENT OF THE LEARNING AND EDUCATION ACADEMIC RESEARCH NETWORK (LEARN)

We are writing on behalf of the Learning and Education Academic Research Network (LEARN) Coalition to express our support for increased funding for several key STEM related research programs that your subcommittee will debate as part of the Fiscal Year (FY) 2023 appropriations process. LEARN, a coalition of 41 leading research colleges of education across the country, supports critical investments in research aimed at advancing the scientific understanding of learning and development. We advocate for greater funding for these priorities across all Federal agencies, including the National Science Foundation (NSF). Specifically, LEARN is requesting \$11 billion be allocated to NSF overall, and for Congress to match the President's FY2023 budget proposal by providing \$1.37 billion towards the Directorate for Education and Human Resources (EHR), which the Administration's FY2023 budget request be renamed the Directorate for STEM Education (EDU), and robust funding for the new Directorate for Technology, Innovation and Partnerships (TIP). While advocating for these increased resources for FY2023, we want to express our appreciation for the increases for NSF provided in FY2022.

While we are grateful for the funding NSF was appropriated in FY2022, we respectfully recognize that increased funding is required to address the effects of historical underinvestment in fundamental research in the United States as well as to support COVID-19 recovery. According to the National Science Board, more than \$3 billion in high-quality proposals are submitted each year that cannot be funded with current appropriations. The potential impact of these missed opportunities is even starker when considering the return on investment of fundamental scientific research and the significant investments that other nations -both allies and adversaries- are making in comparable research areas.

In addition to our call for a \$11 billion funding level for NSF, LEARN supports funding for NSF's EDU directorate at \$1.37 billion in FY2023. EDU works to prepare the next generation of STEM professionals by conducting rigorous research and evaluation of STEM education. Over the past 20 years, the share of U.S. research and development funded by the Federal Government has declined; this decline has disproportionately impacted the higher education sector reducing resources to the sector that drives the most innovation in this area. Stagnation in these key U.S. talent development programs come as our National security leaders are sounding alarm bells over foreign talent recruitment programs which are effectively siphoning STEM capacity from the United States and elsewhere to countries that are strongly investing while we remain complacent. As Congress considers making a large investment in STEM education through the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES)/United States Innovation and Competition (USICA) Act, we urge you to first invest

in EDU which has been successfully supporting STEM education research and dissemination to ensure the creation of an adept and diverse STEM workforce.

Finally, LEARN members are invigorated by the Administration's new call for funding for the TIP directorate. As noted in the President's FY2023 budget, a portion of TIP's mission is to "cultivate new education pathways leading to a diverse and skilled future technical workforce comprising researchers, practitioners, technicians and entrepreneurs." The newly proposed funding for TIP would allow for work across the public and private sector to provide practical experiences to learners and encourage strategic cross-sector partnerships. By targeting a range of educational institutions from community colleges and vocational schools to graduate schools, adequate funding for TIP would ensure that the Nation's STEM workforce is as diverse as it is strong. As a nascent directorate, we urge Congress to provide TIP with robust funding so it can accomplish its innovative goals.

The LEARN Coalition believes strongly that collectively these key investments will advance scientific learning and development to ensure a globally competitive, STEM-educated workforce in the long run. Thank you for considering these requests and please contact us if we can be of any assistance.

Sincerely,  
Camilla P. Benbow, EdD  
Co-Chair, Learning and Education Academic Research Network (LEARN)

Patricia and Rodes Hart  
Dean of Education and Human Development of the Peabody College of Education  
and Human Development, Vanderbilt University

Rick Ginsberg, PhD  
Co-Chair, Learning and Education Academic Research Network (LEARN)  
Dean of the School of Education, University of Kansas

Glenn E. Good, PhD  
Co-Chair, Learning and Education Academic Research Network (LEARN)  
Dean of the College of Education, University of Florida

---

#### PREPARED STATEMENT OF MONTEREY BAY AQUARIUM

The Monterey Bay Aquarium is pleased to submit this statement in support of President Biden's \$6.9 billion budget for the National Oceanic and Atmospheric Administration (NOAA) within the FY 2023 Commerce-Justice-Science Appropriations Act. The following testimony outlines several specific requests within NOAA that support vital research, education and grant programs that are needed in California, the West Coast and nationwide.

The mission of the Aquarium is to inspire conservation of the ocean. In a typical year, we welcome 2 million visitors annually, provide more than 91,000 students and 5,000 teachers with award-winning education programs at no cost, and continue to produce valuable data, tools and approaches at local to global scales through our conservation and science programs.

NOAA is a crucial leader and frequent partner in our mission-driven work. As the Nation's lead science agency for oceanic and atmospheric matters, NOAA provides important tools and services that are necessary to supporting safe communities across the United States and creating a sustainable future for all. NOAA's research, environmental observations and predictions, marine resource conservation and management and education programs and services shape the way we live today and guide decision-making about how to maintain the health and function of coupled ocean and climate system.

The Aquarium strongly supports the President's budget request of \$6.9 billion dollars for FY23 and encourages the subcommittee to continue its balanced and strategic investment strategy for NOAA. Significant congressional investment in NOAA is needed to ensure that the Nation's ocean agency can continue to provide vital science and management services into the future and act for the health and safety of our citizens and rich natural resources. The Aquarium urges the subcommittee to support priority requests for research, education, management, and grants in FY23 that are particularly important for California and West Coast communities.

*Pacific Highly Migratory Species.*—Pelagic and highly migratory fisheries in the Pacific Ocean support thousands of jobs and generate hundreds of millions in revenue related to commercial and recreational fishing, as well as related seafood industries along the West Coast. These highly migratory species (HMS) include valuable tunas (albacore, bluefin), swordfish, marlin, and pelagic sharks that are man-

aged through international agreements and rely on scientific contributions from all nations.

Federal funding opportunities for non-federal scientists in pelagic and HMS research programs in the Pacific have declined considerably since the Pacific Fisheries Research Program (PFRP) ended in 2013. This has resulted in significantly fewer public-private research collaborations with NOAA and a lack of independent science to address critical and timely management questions that directly impact U.S. stakeholders and the health of the Pacific Ocean ecosystem. In the Atlantic, NOAA Fisheries (NMFS) currently has dedicated Federal research programs for HMS fisheries, notably the Atlantic Bluefin Tuna Research Program, as well as a recent HMS Research Program through Sea Grant. Priority HMS fisheries research questions remain unanswered in the Pacific region, but there are no dedicated Federal programs to address life history and other questions central to ensuring international management is sustainable.

We are very grateful that Congress included Pacific HMS research grants alongside the existing Atlantic and Gulf of Mexico HMS research programs within the FY22 Senate Commerce Justice Science report. Additional funding should be provided to ensure that Pacific HMS research needs are addressed alongside the existing HMS priorities in the Atlantic and Gulf of Mexico.

*Request.*—We urge the subcommittee to provide an additional \$2 million and report language to NOAA to support independent HMS research grants for the Pacific region to address key science in support of sustainable international management.

Corresponding Report Language Request:

*Highly Migratory Species: Migratory Species (HMS) Research Initiative for Atlantic, Pacific, and Gulf of Mexico HMS. The Committee notes lack of funding for Pacific HMS independent research that supports ecologically and economically important species such as tuna, swordfish, marlin, and pelagic sharks. Within funding for the Sea Grant program, the Committee provides \$2,000,000 over FY22 for research grants to non-federal entities to improve science-based management of domestic and international HMS in the Pacific region.*

*Bycatch Reduction.*—We recommend that the subcommittee include an increase of \$2 million over FY22 funding for bycatch reduction competitive grants to non-federal researchers for the development and implementation of practical bycatch solutions that support sustainable U.S. fisheries. The program was again funded at the same level in FY22. We request that the subcommittee increase funding for NOAA's bycatch reporting and reduction programs to accelerate technology improvements and help U.S. fishermen achieve greater environmental sustainability while protecting living marine resources, particularly endangered, protected and threatened species.

*Seafood Import Monitoring Program.*—We support an additional \$5 million for NMFS to implement the Seafood Import Monitoring Program (SIMP). Increasing funding for NMFS and specifically for SIMP implementation is essential for safeguarding the integrity of seafood imports in the U.S. and leveling the playing field for U.S. fishermen undercut by illegal, unreported, and unregulated seafood products in the market.

*Climate-Ready Fisheries.*—The Aquarium supports advancing climate-ready fisheries management in the Fiscal Year 2023 Commerce, Justice, Science, and Related Agencies appropriations bill. This should include full funding for NOAA's Climate, Ecosystems, and Fisheries Initiative and enhanced support for fisheries surveys. We specifically request the following investments to support climate-ready fisheries:

1. National Marine Fisheries Service, Fisheries and Ecosystem Science Programs and Services: \$180 million, of which \$10 million is dedicated to Climate-Informed Fisheries Assessment and Management Strategies for Changing Oceans;
2. National Marine Fisheries Service, Fisheries Data Collections, Surveys, and Assessments: \$212 million; and
3. Oceanic and Atmospheric Research, Climate Competitive Research: \$91.5 million, of which \$10 million is dedicated to Marine Ecosystem Responses to Climate Change.

*Ocean Science and Technology.*—The Aquarium collaborates with the Monterey Bay Aquarium Research Institute (MBARI) on science and conservation issues of mutual interest. The success of our efforts to harness cutting edge research to address challenging ocean-related issues is dependent on a vibrant ocean science and technology enterprise. To continue to generate science-based solutions to restore our ocean, and support a robust U.S. role in global efforts, we urge the subcommittee to bolster funding for essential new science and technology. Through NOAA and the

other relevant agencies, including NSF and NASA, we recommend the subcommittee provide support for research and technology development and ocean science.

*NOAA Education.*—The Aquarium is a long-time partner of NOAA's Education programs. We also share NOAA Education's commitment to ensuring diversity among our staff and within the professional spheres of our field. NOAA's José E. Serrano Educational Partnership Program (EPP) with Minority Serving Institutions (MSI) provides STEM education and future workforce training, benefiting both the agency and other organizations by creating a pool of diverse, qualified candidates for the future workforce. We are proud to work with the EPP centers and urge the subcommittee to provide additional funding for the EPP-MSI program to support expansion of the EPP network, particularly to build professional opportunities on the west coast, and build technical capacity within the next generation to address emerging challenges.

*National Marine Sanctuaries.*—The Aquarium collaborates with the Monterey Bay National Marine Sanctuary (MBNMS) program to provide public education and research connected to the MBNMS and in support of its living marine resources. We also support the designation of the Chumash Heritage National Marine Sanctuary, also in California's waters. We recognize the constraints on this important program and support an increase in appropriations for the NOAA Sanctuaries program, including \$87 million for Sanctuaries and Marine Protected Areas within NOAA's Operations, Research, and Facilities (ORF) account.

*Marine Debris Program.*—According to the 2021 National Academies of Sciences, Engineering, and Medicine (NASEM) report undertaken as directed by the Save Our Seas 2.0 Act enacted in 2020, ocean plastic pollution continues to increase, as does the United States' role as a major contributor in this global plastic crisis. The Aquarium urges the subcommittee to provide \$15 million for the Marine Debris Program (MDP) to provide frontline services, funding, and science to meet the demands of plastic pollution challenges along our coastline. Additional funding above \$15 million is necessary in order to meet two recommendations generated by the NASEM report: (1) for the MDP Marine Debris Monitoring and Assessment Project to conduct scientifically designed national marine debris shoreline surveys every 5 years using standardized protocols; and (2) for MDP to contribute to a Federal research and policy strategy focused on identifying, implementing, and assessing equitable and effective interventions across the entire plastic life cycle to reduce the U.S. contribution of plastic waste to the environment.

Thank you for your consideration of these requests.

[This statement was submitted by Ms. Margaret Spring, Chief Conservation & Science Officer]

---

PREPARED STATEMENT OF THE NATIONAL ASSOCIATION OF LATINO ELECTED AND APPOINTED OFFICIALS (NALEO) EDUCATIONAL FUND

Chair Shaheen, Ranking Member Moran, and Members of the subcommittee:

On behalf of the National Association of Latino Elected and Appointed Officials (NALEO) Educational Fund, thank you for the opportunity to submit testimony on the U.S. Census Bureau's budget for fiscal year 2023. As you consider appropriations for fiscal Year 2023, NALEO Educational Fund urges this subcommittee to provide \$2 billion in funding for the U.S. Census Bureau, which represents a \$495 million increase over the President's budget request and \$646 million over the agency's fiscal Year 2022 enacted level. We believe that the \$2 billion funding level is necessary to support the Bureau's efforts to address and ameliorate the significant undercount of our Nation's Latino population and other population groups in the 2020 Census. In addition, we believe there needs to be more robust investment to enhance the accuracy of other Bureau data products. Finally, a higher level of funding would help the Bureau continue to assess and start to make the fundamental changes needed to modernize the census and count all of our Nation's residents fairly and accurately.

NALEO Educational Fund is the Nation's leading nonprofit organization that facilitates the full participation of Latinos in the American political process, from citizenship to public service. Our Board members and constituency encompass the Nation's more than 7,000 Latino elected and appointed officials, and include Republicans, Democrats, and Independents. Since the 1990 Census, our organization has conducted outreach campaigns to promote the full and accurate count of the Latino community. In addition, NALEO Educational Fund is a leading expert on Census policy development, with a long record of service on the Bureau's National Advisory Committees. The organization serves as co-chair of the Leadership Conference on

Civil and Human Rights' Census Task Force, a Steering Committee member of the Census Counts Campaign, and the co-chair of the National Hispanic Leadership Agenda's Census Task Force.

ADDRESSING AND AMELIORATING THE SEVERE UNDERCOUNT OF  
LATINOS IN CENSUS 2020

In March, the Census Bureau released its initial findings from its Post-Enumeration Survey (PES), which revealed a massive 4.99 percent national undercount of Latinos in Census 2020, which is more than triple the percentage of Latinos undercounted in Census 2010. The PES also revealed a 2.79 percent undercount of very young children (ages 0–4); a 3.30 percent undercount for Blacks; and a 5.64 percent for American Indians or Alaska Natives living on reservations. The undercount of very young children, which increased more than threefold from 2010, is very salient for the Latino population and the Nation as a whole. First, the 2020 Census shows that slightly more than one in four children under 18-years-old is Latino (25.7 percent). In addition, 2016 research spearheaded by demographer Dr. William O'Hare found that the net undercount rate in 2010 for very young Latino children (ages 0–4) was 7.1 percent, compared to 4.3 percent for non-Latinos—with Census 2010 missing nearly 400,000 very young Latino children. While more research is needed to determine the undercount of very young Latino children in Census 2020, the initial PES findings raise serious concerns about the size and scope of this undercount.

The historic undercount of Latinos and other population groups has serious implications for the full range of programs, activities, and decisions for which census data are used. These data guide the distribution of more than \$1.5 trillion in annual Federal funding to States and localities, and flawed data will lead to a potential misallocation of resources that could have a detrimental effect on our schools, healthcare systems, infrastructure, and programs essential for the future prosperity and well-being of Latino families and all of our Nation's residents. The undercount of Latinos and other people of color could also dramatically erode the ability of government agencies to monitor and enforce civil rights protections. As a result, our Nation could see existing ethnic and socio-economic inequities in areas such as employment, education, housing, and health care grow far worse.

The undercount of Latinos and other people of color could also lead to a vast number of unsound decisions being made in the public and private sector. Furthermore, data from Census 2020 have already been used to apportion the U.S. House of Representatives and for redistricting, despite the fact that such data do not reflect the actual growth of the Latino population. Without a thorough understanding of the factors which contributed to the Census 2020 undercount, we cannot take the action needed to improve the accuracy of the Census 2030 data which will be used for apportionment and redistricting at the start of the next decade.

Our funding request for fiscal year 2023 would help support the Bureau's efforts to continue to conduct a comprehensive analysis of the effect of the undercount on the Latino community and the implications of the undercount for all of the activities for which census data are used. This would include the Bureau's continued work to examine options to ameliorate the undercount.

Additionally, in May, the Bureau released PES estimates for the undercount of the total population in each State and the District of Columbia. These estimates indicated statistically significant undercounts in six States (Arkansas, Florida, Illinois, Mississippi, Tennessee and Texas), but did not include demographic characteristics such as age, race and Hispanic origin. In addition, the estimates were not available for geographies below the state level. Moreover, the PES state estimates are net figures derived in part from both the 2020 Census omissions and persons overcounted in the enumeration. Thus, the persons overcounted in the state may mask the impact of the persons missed in the enumeration and other significant problems with the overall accuracy of state census data.

Based on our work with and research on historically undercounted communities, we believe it is likely that Census 2020's accuracy varied in different regions of the States. For example, areas with large concentrations of Latinos, Black residents, and young children are likely to have had the highest undercounts, while places with large concentrations of non-Hispanic whites and wealthy residents likely had overcounts. However, without specific Latino undercount data and data on other population groups throughout each State, we cannot determine precisely where and to what extent these population groups were missed.

We understand the Census Bureau's position that the PES sample size is not adequate enough to produce data that meet the Bureau's standards for every demographic group in each State or many localities in the Nation. Thus, our funding request would support much-needed Bureau efforts to research and make available



data from other sources that could help illuminate the accuracy of Census 2020 data for various demographic groups and localities. Finally, our funding request would also enhance the Bureau's ability to engage stakeholders in its efforts to evaluate the implications of the National undercounts and the state PES estimates for different population groups, examine options to mitigate the effect of the undercounts on funding formulas and the fair allocation of resources, and plan for Census 2030.

#### STRENGTHENING POPULATION ESTIMATES AND THE AMERICAN COMMUNITY SURVEY

The Bureau's Population Estimates play a critical role in determining the allocation of Federal funding, and the next annual series of Population Estimates is the basis for all subsequent annual estimates for the next decade. The Bureau will use Census 2020 data in its determination of the next annual series of Population Estimates and given the severe undercount of Latinos and other population groups, the agency needs resources to strengthen the accuracy of the next annual series. This funding would also support expanded and enhanced opportunities for cities, counties, towns, Tribal governments, and other localities to help ensure the accuracy of their annual estimates, through the Population Estimates Challenge Program and other activities. This will help ensure that trillions of Federal funds over the decade can reach the communities needing them the most.

In addition, we believe that the American Community Survey (ACS) is in dire need of additional resources to implement several critical enhancements to the survey. The ACS provides updated data on a wide range of demographic and housing characteristics that are crucial for sound public and private decision-making which affects all aspects of the lives of Latinos, including income, employment status, educational attainment, language proficiency, and nativity. Additional funding would help with such enhancements as increasing the ACS' sample size, improving its non-response follow up operations, addressing steadily declining response rates, revising content, and making other methodological and operational improvements.

#### MODERNIZING THE CENSUS

The massive net national undercount of our Nation's Latino population and other people of color in the 2020 Census demonstrates the need for the Census Bureau to make fundamental changes to how it counts the U.S. population. It can no longer simply rely on the traditional methods of mailing forms out to households and encouraging the public to respond. Thus, our funding request also aims at providing the Census Bureau resources for the purpose of informing its planning for future census data collection programs and surveys. Modernizing the census will involve research, evaluation and testing of a broad range of initiatives and approaches, including modernizing the Bureau's information technology infrastructure, and assessing the use of machine learning and Big Data methodology.

In addition, as part of its modernization activities, the Bureau intends to examine the expanded use of administrative records for various purposes. However, these records have serious limitations with respect to the accuracy and completeness of information on Latinos and other people of color, young children, low-income residents, and other underrepresented populations. Thus, the Bureau needs resources to continue to assess the appropriate use of administrative records for its data compilation and analysis activities.

Finally, the Bureau's efforts to modernize the census could result in approaches that would enable the agency to achieve cost-savings for its Census 2030 operations. However, the agency must start several years before Census 2030 to thoroughly test and evaluate these approaches if they are to be used in a sound and effective manner. Thus, more robust funding for the Bureau in FY 2023 is an investment which would lead to more efficient and cost-effective operations in the next enumeration.

#### CONCLUSION

Census data are the basis of our representative democracy, and our Nation's well-being and prosperity depend in part on the accuracy of the data collected by the Census Bureau. These data guide a wide range of decisions made in the public and private sectors that affect the lives of all Americans. Latinos are the Nation's second-largest population group, and the Bureau cannot produce accurate data on all of our country's residents without accurate data on Latinos. However, as the PES undercount estimates indicate, the Bureau faced significant challenges in accurately enumerating Latinos and other population groups, and these challenges have important implications for other Census activities and products. In addition, evolving demographic, economic, technological and statistical trends require the Bureau to continue its work to modernize the census. We believe that the \$2 billion level of funding we are requesting for fiscal Year 2023 will help the Bureau carry out a more

robust range of activities to make progress in providing the most accurate data possible for our Nation. We appreciate this subcommittee's attention to these important matters and look forward to working with you and other Members of Congress to achieve this important goal.

[This statement was submitted by Arturo Vargas, Chief Executive Officer]

#### PREPARED STATEMENT OF THE NATIONAL CONGRESS OF AMERICAN INDIANS

On behalf of the National Congress of American Indians (NCAI), this testimony addresses important programs in the U.S. Department of Justice (DOJ), U.S. Department of Commerce (DOC), and the National Science Foundation (NSF). As the most representative organization of American Indian and Alaska Native (AI/AN) Tribal Nations, NCAI serves the broad interests of Tribal governments across the United States. As Congress considers the FY 2023 budget and beyond, leaders of Tribal Nations call on decision-makers to ensure that the promises made to Indian Country are honored in the Federal budget.

#### DEPARTMENT OF JUSTICE

The public safety problems that continue to plague Tribal communities are the result of decades of gross underfunding for Tribal criminal justice systems, a uniquely complex jurisdictional scheme, and the historic, abject failure by the Federal Government to fulfill its public safety obligations on AI/AN lands. Crime rates in Tribal communities are among the highest in the Nation, and AI/ANs experience rates of violent crime that are 2.5 times the National average. The 2022 reauthorization of the Violence Against Women Act reaffirms the jurisdiction of all Tribal Nations to prosecute certain crimes. Congress must now appropriate and streamline public safety funds to ensure that Tribal Nations can implement their jurisdiction and increase safety in Tribal communities.

Include Tribal governments in disbursements from the Crime Victims Fund (CVF)—a mandatory account. The CVF is the Federal Government's primary funding source for providing services to victims of crime, and we express our sincere gratitude to appropriators for providing direct funding to Tribal governments from the CVF for the past 5 years. For this funding to fully achieve its purpose, Tribal Nations need the disbursements from the CVF to be recurring in order to ensure long term program stability for victims. We urge this subcommittee to direct an amount equal to 5 percent of overall CVF disbursements to Tribal Nations again this year.

Create a streamlined Tribal allocation across Office of Justice Programs (OJP) programs. For several years, both this subcommittee and its Senate counterpart have supported requests to streamline and consolidate OJP Tribal programs by allocating 7 percent from all discretionary OJP programs to address Indian Country public safety and Tribal justice needs. Despite the subcommittees' support, the request has never been enacted. One of the biggest shortcomings of DOJ Tribal funding is that it is administered as competitive funding that must fit with DOJ established priorities and guidelines. This requires Tribal Nations—on behalf of their Tribal justice systems—to compete against each other and develop projects that align with changing DOJ priorities. Often, Tribal Nations cannot count on funding continuing beyond the current grant period further limiting the ability to effectively address public safety in the long term. A streamlined OJP Tribal allocation would significantly improve the Federal funding process by which Tribal Nations receive resources to establish Tribal courts, assist in developing detention facilities, provide legal assistance, develop and maintain juvenile delinquency prevention programs, and provide substance abuse prevention programs. Further, this type of Tribal allocation would give Tribal Nations the flexibility to develop a detailed strategic plan on how best to spend those resources. We urge the subcommittees to continue to support this request and work with the appropriate authorizing committees to include it.

Increase funding for Tribal law enforcement programs under DOJ's Community Oriented Policing Services (COPS) grants to \$52 million. Since the creation of the COPS Office, more than 2,000 grants totaling over \$400 million have been awarded to Tribal Nations to hire more than 1,700 new or redeployed law enforcement officers. COPS grants have also helped Tribal Nations to obtain necessary law enforcement training, equipment, vehicles, and technology. Yet, there is still a tremendous unmet need within Tribal justice systems for more COPS funding. The COPS Office has acknowledged that due to limited resources, it has not been able to adequately fund Tribal justice systems particularly in the area of hiring and retaining Tribal

law enforcement officers. In a report released in December 2010, the COPS Office described its practice of intermittent funding as “problematic,” especially “when referring to hiring of officers.”<sup>1</sup> Indian Country urges Congress to significantly increase funding for Tribal law enforcement programs under the COPS program.

Fully fund the programs authorized in the Violence Against Women Act (VAWA), including the funds authorized for Tribal implementation of VAWA Special Tribal Criminal Jurisdiction. Over 85 percent of AI/AN women are estimated to experience violent victimization in their lifetimes. The DOJ Office of Violence Against Women (OVW) provides funding to Tribal governments to address violence against women in their communities. OVW’s largest source of funding for Tribal governments is the Grants to Tribal Governments Program, which is funded via statutory allocations from other OVW programs. Fully funding these OVW programs results in full funding for the Grants to Tribal Governments Program.

The Violence Against Women Reauthorization Act of 2022 (VAWA 2022) recognized and affirmed the inherent sovereign authority of all Tribal Nations to exercise Special Tribal Criminal Jurisdiction (STCJ) over all persons—Indian and non-Indian—who commit certain crimes within Indian country and designated lands. VAWA 2022 included a new STCJ pilot program for Alaska Native Villages and increased authorization levels to support Tribal public safety in Alaska and in the lower 48. The law authorizes \$25 million a year for 5 years for Tribal Nations to implement the STCJ, receive reimbursements for certain costs, and strengthen Tribal justice systems. We urge this subcommittee to appropriate the full amount authorized for VAWA 2022 implementation purposes so that more Tribal communities are able to take advantage of this lifesaving law.

#### DEPARTMENT OF COMMERCE

Beginning in February 2022, the Bureau of Labor Statistics published monthly data on AI/AN employment, using data that was previously available through the U.S. Census Bureau’s Current Population Survey. The newly published data reveals a labor market that would be considered catastrophic if it were representative of the full U.S. economy—Indian Country has an unemployment rate more than double national rate.<sup>2</sup> The data further highlights that Indian Country is still recovering from the effects of the pandemic, with unemployment rates reaching 28.6% during the peak of the pandemic fallout—an amount comparable to the National unemployment rate during the Great Depression.<sup>3</sup> As of January 2022, the unemployment rate for Native Americans was still greater than the peak unemployment rate for white workers during the pandemic.<sup>4</sup>

Even when controlling for a host of factors, the Brookings Institute posits that structural racism in the U.S. economy affects AI/AN access to education and attainment as well as employment opportunities.<sup>5</sup> As traditionally place-based peoples with strong cultural and historical ties to the land, AI/ANs do not tend to move away regardless of economic situations. This means that the structural impediments to economic growth are focused and exacerbated on Tribal lands, underscoring the importance of Federal investment through regular Federal appropriations. Unfortunately, cross-referencing Office of Management and Budget data with Appropriations Committee reports reveals that regular appropriations for the benefit of Native Americans represents approximately 0.19% of total regular appropriations budget authority in the fiscal Year 2022 Omnibus. With Federal investment metrics such as these, it is no surprise that Indian Country is in a State of catastrophe by national standards. These broken promises of the United States dampen local, regional, and national U.S. economic productivity and negatively impact the safety and wellbeing of Americans—Native and non-Native alike.

The U.S. Department of Commerce administers programs that could greatly benefit Indian Country, for example, the National Telecommunications and Information Administration (NTIA), International Trade Administration, Economic Development Administration, Minority Business Development Agency (MBDA), Census Bureau,

<sup>1</sup> U.S. Department of Justice, COPS Office report to Congress as required by Tribal Law and Order Act of 2010, available at: <https://www.justice.gov/sites/default/files/tribal/legacy/2014/02/06/cops-congress-report.pdf>, Accessed: May 13, 2022.

<sup>2</sup> Robert Maxim, Randall Akee, and Gabriel R. Sanchez, For the first time, the government published monthly unemployment data on Native Americans, and the picture is stark, available at: <https://www.brookings.edu/articles/despite-an-optimistic-jobs-report-new-data-shows-native-american-unemployment-remains-staggeringly-high/#:text=Prior%20to%20the%20pandemic%2C%20Native,unemployment%20during%20the%20Great%20Depression>, Accessed: May 4, 2022.

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

and the National Oceanic and Atmospheric Administration (NOAA). However, the funding for these programs benefiting Native Americans must increase from the trickle of past years to a more robust distribution for broadband deployment, economic and business development assistance, trade and tourism promotion, fisheries programs, and Tribal government data collection and analysis capacity.

This subcommittee can correct this investment deficiency by providing: at least \$1 billion to NTIA's Tribal Broadband Connectivity Grant Program to reduce the backlog of at least \$5 billion of identified, unfunded broadband projects; \$70 million to continue supporting MBDA Business Specialty Centers, and set aside at least \$5 million in grants for Native American business and procurement assistance; \$5 million for the Office of Native American Business Development (ONABD) to coordinate within Commerce and with other Federal agencies to promote and support Native American business development, trade, and tourism; at least \$110 million for the Pacific Coastal Salmon Recovery Fund; \$25.9 million for NOAA Mitchell Act Hatchery Programs; and at least \$100 million for Census Bureau grants to Tribal Nations to improve internal government data capacity.

#### NATIONAL SCIENCE FOUNDATION

NSF has dedicated funding for Tribal Colleges and Universities (TCUs) and other research activities related to arctic social sciences to promote high-quality science and educational opportunities in social and behavioral sciences, natural sciences, computer sciences, as well as supporting science, technology, engineering and mathematics (STEM) and STEM education, research, and outreach. As traditionally place-based peoples with strong cultural and historical ties to the land, investments in TCUs promote economic growth, education, career training, social wellbeing, and cultural preservation directly within Native communities. Similar to many Federal investments through the regular appropriations process, cross-referencing Office of Management and Budget data with Appropriations Committee reports reveals that regular appropriations for NSF for the benefit of Native Americans represents approximately 0.27% of total regular appropriations budget authority in the FY 2022 Omnibus.

This subcommittee must increase its investment into Native Higher Education by providing \$100 million for the Tribal Colleges and Universities Program, which includes funding for Alaska Native-Serving institutions and Native Hawaiian-serving institutions, and \$10 million for the Arctic Social Sciences Program to support research on social and cultural systems of the Arctic, present and past.

#### CONCLUSION

Tribal Nations are uniquely reliant on the Federal Government to fulfill its promises made in exchange for the land that created the foundation of the bounty and wealth of the United States. Our people have paid for every penny obligated to Indian Country hundreds of times over by providing this Nation with our land. In order to uphold this Nation's promises to its people, it must first uphold its promises to this land's First Peoples. We expect to continue to be treated as sovereign nations with governmental parity. We must continue down that path of Nation-to-Nation growth, and only then will all of our people be able to fully flourish.

For more information, please contact Kelbie Kennedy, Policy Manager and Policy Lead—National Security and Community Safety, at [kkennedy@ncai.org](mailto:kkennedy@ncai.org); C.C. Wright, Policy Lead—Community Development & Infrastructure, at [cwright@ncai.org](mailto:cwright@ncai.org); Julia Wakeford, Policy Lead—Social and Cultural Resources at [jwakeford@NCAI.org](mailto:jwakeford@NCAI.org); or Tyler Scribner, Policy Lead—Federal Revenue & Appropriations, [tscribner@ncai.org](mailto:tscribner@ncai.org).

[This statement was submitted by Dante Desiderio, Chief Executive Officer]

#### PREPARED STATEMENT OF NATIONAL COURT APPOINTED SPECIAL ADVOCATE (CASA)/ GUARDIAN AD LITEM (GAL) ASSOCIATION FOR CHILDREN

Chairman Leahy, Chair Shaheen, Vice Chairman Shelby, Ranking Member Moran, and Members of the Commerce, Justice, Science, and Related Agencies subcommittee, thank you for the opportunity to submit remarks on the Department of Justice (DOJ) FY 2023 budget including funding of the Court Appointed Special Advocates (CASA) Program through the Office of Justice Programs' State and Local Law Enforcement Assistance Account.

CASA/GAL advocacy is a well-established model strongly associated with improved long-term outcomes for child victims, for which the need continues to be critical. With Congressional support at the requested level of \$15 million, the CASA/

GAL network in 49 States and the District of Columbia will enhance and advance specialized training, tools, and resources to continue delivering vital one-on-one best-interest advocacy that addresses the complex and ever-evolving needs of children who have suffered trauma after experiencing abuse or neglect by one or more primary caregivers.

Emerging issues such as the commercial sexual exploitation of children and our Nation's growing opioid epidemic—for which children account for an increasing number of victims—both necessitate a greater specialization within one-on-one advocacy, with a keen and deliberate focus on progressing toward the call within the Victims of Child Abuse Act to serve every child victim. As we enrich CASA/GAL advocacy to encompass evolving direct service needs, our National network will further strengthen its capacity to serve over 250,000 child victims of abuse and neglect.

Child victimization and maltreatment by primary caregivers remains all too prevalent in our country and the negative impacts on children, their families and society are significant. Traumatized victims of child abuse and neglect face significant and multiple risk factors, most notably, juvenile delinquency, adult criminality, and poor educational performance that affects future employment and stability. These issues result in a hefty impact on federal, State and local spending—at least one-quarter of the DOJ budget is dedicated to our Nation's prison system, and at the same time, the Centers for Disease Control and Prevention (CDC) estimates the economic and social costs of child abuse and neglect to total \$124 billion nationwide per annum. Local CASA/GAL programs offer an effective service to child victims of abuse and neglect that improves outcomes, increases the efficient functioning of our court systems, and saves millions in Federal and State taxpayer dollars annually in the process.

CASA/GAL programs are, at the heart of their operation, a highly effective leveraging of community-based resources to provide dedicated and sustained one-on-one advocacy for child victims and advise the courts of the child's best interests and needs throughout abuse and neglect proceedings. Research has shown that the presence of a caring, consistent adult in the life of a child victim is associated with improved long-term outcomes. These efforts, which focus on helping the child find a safe, permanent home where they can both heal and thrive, require thorough background screening, specialized training, and resources to promote a nationwide system of programs that adhere to and assure the highest quality of services and care for the child victim.

CASA Program funds through DOJ achieve and uphold national standard setting, assessment, accountability, and evaluation across 950 local, State, and Tribal programs to promote improved child outcomes and effective stewardship of public investments in victim advocacy. Evidence-based practices, intensive technical assistance, direct program guidance and partnerships, and national program standards and quality assurance processes all lie at the foundation of effective CASA/GAL program service delivery in communities across the Nation.

Given the nature of the CASA/GAL advocates' intensive work with child victims of abuse and neglect, standards of rigorous screening, training, supervision, and service are implemented nationwide, with Congressional support, to ensure consistent quality for victims who directly benefit from having their needs and rights championed in the courtroom and in the community. Comprehensive pre-service, in-service, and issue-focused training curricula—including training in disproportionality, cultural competency, and working with older youth—ensures a cutting edge approach to victim services centered on the child thriving well into the future as a member of the community. Federal support is foundational to the solid and high-quality functioning of a national child advocacy network for victims of abuse and neglect.

As the needs of child victims of abuse and neglect grow and change, so must the specialization of one-on-one advocacy and services by CASA/GAL programs. Since the Victims of Child Abuse Act was passed, the landscape of victims' services for children has evolved significantly. Researchers and practitioners know more now than ever about trauma, and its associated impacts on child development, as well as the significant and multiple risk factors and issues faced by abused and neglected children such as mental health/post-traumatic stress disorder (PTSD), commercial sex trafficking, overmedication, and the growing effects of substance abuse and the opioid epidemic in particular. Further, we know that youth of color in particular face very significant challenges—in addition to victimization—on their path to a thriving adulthood. CASA/GAL advocates bring one-on-one attention and a dedicated focus to each of the issues that the child victim faces, but additional resources are needed to enhance and build their knowledge base as part of a continuous advocacy development process.

These complex issues warrant adaptive and responsive training, technical assistance, and resources, while continuing on a trajectory of maintaining quality care and services within current CASA/GAL caseloads and also simultaneously building the capacity to take on additional cases when appointed by the court. National CASA/GAL Association is committed to continuous improvement of training, technical assistance, and resource delivery to strengthen and support local CASA/GAL programs and state organizations to help advocates remain at the forefront of emerging child welfare issues.

Federal support at the requested level is instrumental to bridging advocacy training and best practice tools into multiple and new emerging issue areas including child sex trafficking, substance abuse and opioid-overuse, and the overmedication of child victims, for example. Advocates need to be well versed in warning signs for these issues, as well as the available services, resources, and coordination of community and court efforts in order to best address the child victim's case.

FY 2023 funding of \$15 million will be targeted to fortifying resources and training generally for CASA/GAL programs, and in key focus areas including commercial sexual exploitation, children impacted by substance abuse disorders, children of incarcerated parents and young people aging out of foster care, based upon existing best practices and models. In addition, this Federal funding will be used to target resources to serve over 250,000 child victims of abuse and neglect, and continue efforts toward the development of strong state CASA/GAL organizations in the States currently under resourced, that will enhance support of program service delivery in local communities. Additional projects include sustaining development of training on best practices in addressing the needs of children impacted by the opioid epidemic and other forms of substance abuse, child sex trafficking, unaccompanied children and addressing racial disproportionality in child welfare and the need for racially and culturally sensitive recruitment and matching of CASA/GAL advocates.

According to the most recent government data available, the number of child maltreatment cases was 656,000 in 2019. This remains a significant population with equally significant and complex issues and risk factors. Without the benefit of a specially trained CASA/GAL advocate that is able to devote dedicated time and attention to the details of the case, the child victim faces a complex court process and child welfare system that is overwhelmed, under resourced and challenging to navigate. Our ability as a national network to serve every child victim of abuse and neglect is directly tied to strengthening and expanding a foundational and interwoven program of advocate training, technical assistance, standards, tools, and resources that are funded with DOJ support.

While children who are the victims of maltreatment have suffered deep layers of trauma, these experiences do not have to be their only life story. Juvenile detention and adult incarceration do not have to be the path to their future. Substance abuse, PTSD, homelessness, and joblessness do not have to be the basis of their experiences. We can change their trajectory, together, with Congressional support.

Caring, dedicated, and extensively trained CASA/GAL advocates bring about positive changes in the lives of child victims. Full funding is needed to continue expanding the advocate pipeline, enhance the training, resources, and services provided to and through CASA/GAL programs, and strengthen outcomes for future members of our Nation's workforce.

We urge the subcommittee to allocate \$15 million for the Court Appointed Special Advocates Program to address the overwhelming need for dedicated advocacy on behalf of child victims of abuse and neglect. Thank you for your consideration.

[This statement was submitted by Tara L. Perry, Chief Executive Officer]

---

#### PREPARED STATEMENT OF NATIONAL FISH AND WILDLIFE FOUNDATION

Chair Shaheen, Ranking Member Moran and Members of the subcommittee:

Thank you for the opportunity to submit testimony regarding FY 2023 funding that impacts the National Fish and Wildlife Foundation (NFWF). We respectfully request your approval of robust funding throughout the National Oceanic and Atmospheric Administration's (NOAA) budget, particularly for the National Ocean Service and National Marine Fisheries Service to allow for continued and expanding partnerships that deliver high quality ocean and coastal conservation.

NFWF and NOAA have been strong partners since 1996 and the Foundation continues to administer programs with NOAA that address ongoing and emerging issues. We believe that NFWF is a sound investment because of our proven track record for leveraging Federal funding with private contributions to maximize the impact Federal resources can achieve. We appreciate the subcommittee's past sup-

port and respectfully request continued funding for the following programs and partnerships.

#### NATIONAL COASTAL RESILIENCE

Resilient communities are better prepared to adapt to changing natural resource conditions, infrastructure threats and impacts to local economies. NFWF and NOAA working together through the National Coastal Resilience Fund (NCRF) provide communities with invaluable resources for restoring, enhancing, and strengthening natural infrastructure—the natural features that help reduce the impacts of coastal storms and floods—protecting communities while also enhancing habitats for fish and wildlife, addressing climate change, and sequestering carbon. NFWF also leads significant monitoring and evaluation efforts that measure the enhanced resilience of the restored coastal systems, including carbon sequestration. This helps improve our understanding of which activities are associated with the greatest and most cost-effective reductions in storm risk and storm damage.

Through the NCRF in 2021, NFWF, NOAA, and other partners awarded \$40.5 million in new grants that will support projects in 28 States and U.S. territories. The 49 grants announced will generate more than \$58.3 million in matching contributions for a total conservation impact of nearly \$98.8 million. These investments will support the restoration or expansion of natural features such as coastal marshes and wetlands, dune and beach systems, oyster and coral reefs, coastal rivers, and barrier islands that minimize the impacts of storms, flooding and other coastal hazards. In addition to NOAA, 2021 partners included the Department of Defense, Environmental Protection Agency's Gulf of Mexico Office, TransRe, AT&T and Shell USA, Inc. These partners pooled resources to promote projects that advance innovative approaches to protect communities against regional threats resulting from climate change.

The demand for this program's financial resources continues to significantly exceed the amount of annual funding available - in 2021, NFWF received 269 proposals seeking more than \$178 million in funding, with only \$41 million in available resources to meet this need. NFWF expects that demand will only increase as climate related risks increase and more communities develop capacity to utilize nature-based infrastructure to protect lives and infrastructure from these risks. The Foundation fully expects that even with additional funding provided from the Bipartisan Infrastructure Law (BIL) that demand will continue to greatly surpass available funding.

#### FISHERIES ELECTRONIC MONITORING AND REPORTING

Since 2010, NFWF has invested significantly in fisheries around the U.S. to catalyze projects that are modernizing the way vital fisheries data are collected, shared, and analyzed. High quality, timely and accurate fisheries information is critical to maintaining sustainable U.S. fisheries. Fishermen and seafood marketers are increasingly using information about their fishing activity to improve the efficiency and effectiveness of their operations and to satisfy their customer demands for legally and sustainably caught seafood.

From 2015 to 2021, the Electronic Monitoring and Reporting (EMR) grant program has funded \$25.1 million across 75 projects that modernize U.S. fisheries data collection and received \$26.3 million in matching funds to leverage these investments. Innovation and technology have the potential to reduce the cost of fishery monitoring; increase the speed, reliability and transparency of fisheries data; and enable managers and fishermen to address management challenges more effectively. EMR isn't one size fits all. NFWF projects represent a cross section of the advancements being made around the U.S. in fisheries management.

#### CORAL REEF CONSERVATION

Since 2000, NFWF has partnered with NOAA, FWS, and USDA–NRCS to respond to the alarming decline in both the quantity and productivity of the Nation's coral reef ecosystems through multiple coral conservation initiatives that aim to improve management, increase public awareness, and reduce threats to coral reefs. NFWF works with local, State, territorial, Federal and regional partners to achieve its goals in coral conservation and bolsters multi-agency initiatives like the U.S. Coral Reef Task Force Watershed Partnership Initiative. The program supports reef resiliency by reducing local stressors from unsustainable harvest and land-based pollution. In 2020 the program added a new funding priority to build capacity for direct reef restoration efforts and launched a separate emergency funding solicitation to respond to events like Stoney Coral Tissue Loss Disease which can be time sensitive.

Since the creation of NFWF's coral program in 2000, the program has awarded \$22 million across 408 projects, leveraging more than \$29 million in conservation resources. Funds have assisted broad-scale coral reef management by establishing new techniques for assessing and monitoring reef health and new fishery management models. Site-specific initiatives have developed and implemented watershed management plans, reduced sediment erosion through stream bank stabilization, provided incentives or best management practices on agricultural lands, and supported capacity-building of management and conservation organizations to sustain conservation outcomes.

#### KILLER WHALE CONSERVATION

NFWF partners with NOAA's Office of Protected Resources, SeaWorld Entertainment and BNSF Railway on the Killer Whale Research and Conservation Program to aid in the recovery of the Southern Resident killer whale population in the Pacific Northwest. The program prioritizes the highest impact activities called for in the recovery plan as more funding is sought to fund additional actions beyond traditional management and conservation measures.

In the first 7 years, the program has awarded 46 grants totaling \$5.3 million, drawing an additional \$9.2 million in grantee match for a total conservation investment of more than \$14.5 million. These awards have fostered collaborative efforts in the three priority action areas of recovery to increase prey availability through restoration of important salmon runs; improve water quality and reduce disturbance in critical habitat; and fill critical research gaps in health, demographics and stressors. All three strategies work to partner science with management action and restoration activities. NFWF has taken a comprehensive food-web approach to recovering this apex predator and works with state and transboundary managers to implement recovery actions. DoD is expected to join this program in 2022 to further advance the food-web approach.

#### PAPAHĀNAUMOKUĀKEA RESEARCH AND CONSERVATION

NFWF's and NOAA's partnership on the Papahānaumokuākea Research and Conservation Fund provides coordinated and collaborative research and conservation in support of effectively managing the species and habitats in the Papahānaumokuākea Marine National Monument. One of the key challenges for NOAA and its partners managing this expansive area is its remote location. Past agency funding only allowed for a single voyage to the Marine Monument in the Pacific Ocean to address multiple needs and locations per year, making it difficult to do the in-depth studies managers need. NFWF and NOAA initiated a new model for investments to go deeper, learn more and further expand the existing program and research dollars that are currently invested to maximize the conservation impact.

The partnership supports collaborative research and conservation actions to galvanize funding around a critical management theme. For example, prioritized research on the algae *Chondria* is helping managers explore mitigation of the recent unprecedented algae invasion while support of marine debris removal cruises works to remove the significant amounts of debris accumulating in the monument. Throughout all investments, the program seeks to maximize conservation impact, management capacity and cultural and outreach opportunities.

#### MARINE DEBRIS

NFWF and NOAA have several ways in which we are working together to combat the problem of Marine Debris. Starting over two decades ago, NFWF administered a Marine Debris Program to help NOAA's new program understand the scope of marine debris across the Nation by advancing science around sources, sinks and impacts to both habitats and wildlife. These early efforts transitioned into the Fishing for Energy program which prioritized removal and prevention of derelict fishing gear as one of the most destructive types of marine debris. This programmatic funding and disposal infrastructure has helped to expand and institutionalize marine debris removal and disposal efforts in several coastal States and port communities.

Building off this extensive experience, in 2020 NOAA asked NFWF to assist in administering approximately \$10 million in 2019 supplemental funding to remove damaging marine debris from coastal areas of communities impacted by hurricanes Florence and Michael, and Typhoon Yutu and reduce impacts to communities, industry and further harm to habitats and fish and wildlife populations. The Hurricane Response Marine Debris Removal Fund is a partnership between NFWF and the NOAA Marine Debris Program that awards grants to assess, remove and dispose of marine debris caused by severe storms. Grants are awarded based on the



targeted debris' existing or potential impact to coastal communities and resources, and to prevent further harm to sensitive marine habitats and species listed under the Endangered Species Act. NOAA has again requested assistance with administration of the 2021 supplemental funding which will award grants in 2022.

#### NFWF BACKGROUND

NFWF was established by Congress in 1984 to catalyze private investments to conserve fish, wildlife and their habitats. In addition, every dollar directly appropriated to NFWF by Congress goes to on-the-ground conservation projects and NFWF charges no administrative costs. NFWF raises private funds not only to leverage Federal dollars, but also to support the associated management costs of implementing the Federal funds. Since Congress created the foundation in 1984, NFWF and its grantees have invested \$7.4 billion in to more than 20,400 projects while partnering with 6,000+ organizations.

NFWF remains fully transparent and is required by law to notify Congress 30 days in advance of every grant that exceeds \$10,000 in Federal funds. Details of all projects awarded during FY 2021 can be found in NFWF's annual investment guide and all NFWF's grants can be found on our website: <https://www.nfwf.org/grants/grants-library>.

In FY 2021, NFWF was audited by an independent accounting firm, and they issued an unqualified report with no material weaknesses identified and no deficiencies identified. This is the THIRTEENTH consecutive year of unqualified audits. In addition, NFWF has continually qualified as a low-risk auditee under OMB guidelines.

In FY 2021, through discretionary cooperative agreements, NFWF partnered with 15 Federal and State agencies or departments and more than 30 corporations and foundations to support implementation of Federal conservation priorities. These efforts focused on working landscapes, private lands, natural resource conservation, coastal resilience and community-based restoration.

Chair Shaheen, Ranking Member Moran and members of the subcommittee, we appreciate your continued support and stand ready to answer any questions you or your staff might have.

[This statement was submitted by Will Heaton Director, External Relations]

#### PREPARED STATEMENT OF NATIONAL LEGAL AID & DEFENDER ASSOCIATION (NLADA)

NLADA is America's oldest and largest national organization whose resources are exclusively dedicated to excellence in the delivery of legal services. Our comments concern the Legal Services Corporation (LSC) and U.S. Department of Justice (DOJ) programs.

#### LEGAL SERVICES CORPORATION

Civil legal problems jeopardize the housing, income, physical safety and other basic human needs of millions of Americans every year. When people have access to legal help, these problems are often resolved positively, but people who are forced to face courts and complex legal processes alone are more likely to experience severe consequences that create deep unnecessary hardship for themselves and their families. The latter is unfortunately the reality for a large majority of low-income Americans, and the problem is growing. In 2017, LSC published data showing that low-income Americans received no help or inadequate help with 86 percent of their civil legal problems. This is because despite overwhelming evidence for both the effectiveness of civil legal aid, and the considerable social and economic return on investment that it produces,<sup>1</sup> our country has failed in recent years to provide a level of resources for legal aid that is remotely commensurate with the level of need.

While we are grateful to Congress for providing modest increases in funding in recent years, this has not been sufficient to address the current resource shortfall, because prior funding losses were never rectified. Demonstratively, the appropriation level for FY2019 was the exact dollar amount as it was in FY1994. Therefore, simply as a result of inflation LSC is badly underfunded compared to its level almost three decades ago, and for much of that period it was considerably lower in real terms also. This historical understanding underpins the current crisis, but present conditions have deepened it considerably. In April, LSC released new data

<sup>1</sup>Moore, L. and Phyper, M., Aug 2019, Return on Investment in Civil Justice Services and Programs; Selected Annotated Bibliography of Existing Research; Canadian Forum on Civil Justice; see pages p10–26.

showing the extent to which this has occurred. Last year, low-income Americans received little or no legal help with 92 percent—more than nine in ten—of their civil legal problems.<sup>2</sup>

This is not because people are simply uneducated about the availability of legal help, though this is true for many. Rather, people facing serious legal problems are seeking help but denied it because their local legal aid organization does not have the resources needed to assist: programs had to turn away 49 percent of eligible clients seeking help, and could not fully resolve 44 percent of the problems of the clients they could serve. Even prior to the release of LSC's new data, NLADA calculated LSC would need to provide \$1.36 billion for FY2023 in order to provide adequate service to every eligible person seeking help from one of its grantees. This was based in part on a projection of the level of need in FY2023, and in part on our understanding that it is not possible to avoid addressing the consequences of prior underfunding any longer.

*An elevated level of legal need and demand for services.*—The severe disruption caused by the COVID-19 pandemic has subsided, but it has created lasting consequences for many of our country's poorest families and the overall financial situation of low-income Americans is becoming even more precarious. The Census Bureau Household Pulse survey data collected at the start of April found increases of more than 30 percent in the number of households relying on credit or personal loans to make ends meet, with far higher rates experienced by people of color<sup>3</sup>. This limits the ability of families to resolve their problems before they reach the stage at which legal assistance becomes necessary.<sup>4</sup> In particular, an eviction crisis that was blunted but not halted<sup>5</sup> by Federal eviction moratoria and emergency rental assistance continues to create widespread unmet legal need. Household Pulse data from the same period suggests that around 28 percent of American households “are not current on rent or mortgage where eviction or foreclosure in the next 2 months is either very likely or somewhat likely”.<sup>6</sup> Eviction cases where tenants are represented are overwhelmingly likely to resolve with the eviction avoided, but the opposite is true when they are not,<sup>7</sup> as is the case for 90 percent of tenants.<sup>8</sup>

Addressing the consequences of underfunding. The insufficiency of resources provided for civil legal aid has forced many providers to “triage” clients, prioritizing the most urgent cases at the expense of other worthy seekers of assistance. It has also come at the expense of investing in other organizational needs that are nonetheless required to provide adequate services. Most notably, compensation for attorneys and other important staff at legal aid organizations is currently not sufficient to recruit and retain the workforce they need. The median starting salary for a legal services attorney in 2021 was less than \$55,000.<sup>9</sup> Combined with the high student debt burden required for a law degree, it is unaffordable for many to accept these positions or remain over the long-term. Also affected by resource limitations is the ability of organizations to educate their communities about available services, contributing to the fact that 53 percent of people did not feel confident they could find a lawyer they could afford to help with their legal problem.<sup>10</sup>

#### U.S. DEPARTMENT OF JUSTICE PROGRAMS

##### *Tribal Civil and Criminal Legal Assistance, Training and Technical Assistance*

We request that FY 2023 funding be maintained for the Department of Justice, Office of Justice Programs, within the State and Local Law Enforcement Assistance

<sup>2</sup>Legal Services Corporation, Apr 2022, The Justice Gap: The Unmet Civil Legal Needs of Low-income Americans.

<sup>3</sup>Pete Gannon, Apr 26, 2022, Warnings Appear in Household Finances, Axios.com.

<sup>4</sup>This intersects with the economic hardship caused by the expiry of the Federal child tax credit, which alone increased the number of children in poverty by almost 4 million. See: Parolin, Z., Collyer, S., and Curran, M., Feb 17, 2022, Absence of Monthly Child Tax Credit Leads to 3.7 Million More Children in Poverty in January 2022, Columbia University Center on Poverty and Social Policy.

<sup>5</sup>Tenants were often refused the opportunity to renew their lease, which Federal moratoria did not protect against.

<sup>6</sup>Data taken from week 44 of the Household Pulse survey, at: <https://www.census.gov/data-tools/demo/hhp/#/?measures=EVICTFOR>.

<sup>7</sup>For a review of recent studies finding this, see pages 50–53 in: The Economic Impact of an Eviction Right to Counsel in Baltimore City; Prepared for The Public Justice Center, May 8, 2020, Stout Risius Ross.

<sup>8</sup>Desmond, M., Mar 2015, Unaffordable America: Poverty, housing, and eviction, Fast Focus, Volume 22, Institute for Research on Poverty, University of Madison-Wisconsin, p.5.

<sup>9</sup>National Association for Law Placement, Inc., Sept 2021, Starting Salaries—Class of 2020.

<sup>10</sup>Legal Services Corporation, Apr 2022, The Justice Gap: The Unmet Civil Legal Needs of Low-income Americans, p.52.

appropriations account, at a level similar to that provided in recent years, which is approximately \$1 to 2 million, for the Tribal Civil and Criminal Legal Assistance, Training and Technical Assistance grant program (TCCLA). This should continue to include funding in FY 2023 to support the work done on behalf of Native Americans by Indian Legal Services programs that are connected with the Legal Services Corporation. This FY2023 funding could be either within a specified line item for “assistance to Indian Tribes,” such as the \$50 million Congress appropriated in the FY2022 Consolidated Appropriations Act, and was included in the President’s Budget for FY2023, or within a Tribal set-aside percentage of Office of Justice Programs accounts, as this subcommittee has recommended in prior years. The consortium of 24 Indian Legal Services programs operating in 23 States provides legal representation to thousands of American Indian and Alaska Native individuals in Tribal and State courts, and assists more than 160 Tribal governments and/or Tribal judicial systems to enhance or develop their justice systems. In at least 46 Tribal courts, these Indian Legal Services programs provide the only public defender services available. Many of these Indian Legal Services programs have been awarded funding under the TCCLA grants program, most recently for FY 2021 for both Tribal civil and criminal legal assistance:

Recent examples of civil legal assistance work done under TCCLA funding awards include drafting model domestic violence protective order codes, as well as drafting Tribal laws and revisions to civil codes, policies and procedures; providing representation to children within the juvenile systems of Tribal courts as guardians ad litem; handling Indian wills, which has included drafting Advanced Directives for Tribal members; and collaborating and maintaining relationships with Tribal domestic violence advocates, Tribal crime victims’ advocates, urban Indian organizations, prosecutors, Tribal public defenders, State and Tribal social service agencies, Tribal housing authorities, senior center staff, staff at local Bureau of Indian Affairs and Department of the Interior Office of Special Trustee offices, the Tribal bar, and others to improve community awareness about available legal services and provide more comprehensive services.

Recent examples of programs’ criminal legal assistance work conducted under TCCLA funding awards include representation of defendants in a tribal/State court dual-jurisdiction DWI hearing to wellness court; presenting on the U.S. v. Cooley case and impacts on Tribal law enforcement when encountering non-Indians on non-Tribal lands within the boundaries of a reservation; handling cases related to the expungement of criminal records; providing a Public Defender for Tribal members in the Chickasaw Nation Tribal Court pursuant to the June, 2020, U.S. Supreme Court ruling in *McGirt v. Oklahoma*; assisting juvenile Tribal members in criminal defense and court appointments of guardian ad litem cases when parents faced criminal prosecution or incarceration; and handling trial level casework regarding unlawful pre-trial detention.

In FY 2023, whether the subcommittee recommends funding to DOJ for Indian Country Tribal justice and law enforcement programs as an overall sum, as in fiscal year 2022, or as a Tribal set-aside percentage of overall DOJ funding, as has been proposed in prior fiscal years, we request that both bill and report language direct that some DOJ funding be allocated for the purpose of the provision of both Tribal civil and criminal legal assistance to individual Tribal citizens and to Tribal judicial systems pursuant to the Indian Tribal Justice Technical and Legal Assistance Act.

#### PUBLIC DEFENDER IMPROVEMENT

The Federal Government has an important role in ensuring quality in State and local public defense systems, and the President’s Budget for FY2023 included \$25 million for public defender improvement. We urge the committee to fully fund this program. DOJ has previously undertaken initiatives to support state, Tribal, and local public defense systems, including the Smart Defense Initiative, which focused on upholding the Sixth Amendment right to counsel, and on fostering defender-researcher partnerships; and the Sixth Amendment Initiative, which focused on the protection of all Sixth Amendment rights via strategic planning, implementation of strategic plans, and innovative partnerships between public defense service providers and other criminal legal system stakeholder groups. These initiatives have yielded substantial benefits for criminal legal systems and for communities more broadly. For example, a pilot program under the Smart Defense Initiative to provide representation at all felony arraignments in Alameda County, CA reduced unnecessary pretrial incarceration and provided substantial cost savings: the percentage of cases where accused individuals were released at arraignment increased from less than 1% to 20%; motions to reduce bail (which were virtually nonexistent without

counsel) had an 83% success rate; and the assistance of counsel avoided 2,974 days of incarceration, translating to a savings of \$422,308 in a single year.

#### VIOLENCE AGAINST WOMEN ACT (VAWA) PROGRAMS

More than 1 in 3 women and more than 1 in 4 men in the United States had experienced rape, physical violence, and/or stalking by an intimate partner. Civil legal aid helps survivors secure their physical safety, break legal links with their abuser, and rebuild their lives over the long term. We urge the committee to provide \$100 million for civil legal assistance for victims, as requested by the President. None of this appropriation should be drawn from the Crime Victims Fund administered by the Office for Victims of Crime, because this reduces the total amount available to serve victims of crime and jeopardizes the sustainability of Crime Victims Fund over the long-term. The sustainability of the Crime Victims Fund is a bipartisan concern, as shown by the enactment of H.R. 1652, the VOCA Fix to Sustain the Crime Victims Fund Act.

#### JOHN R. JUSTICE STUDENT LOAN REPAYMENT ASSISTANCE PROGRAM

As the cost of law school continues to rise, new lawyers are increasingly reliant on student loans to obtain a law degree: a 2021 report shows that the average law school student borrows over \$118,000 just to attend law school, and 74.1% of law school students graduate in debt.<sup>11</sup> Salaries for public defenders and prosecutors are low, so sustaining a career in public service is often impractical if not impossible, leading to public defender programs and prosecution offices being unable to retain talented attorneys. The John R. Justice Student Loan Repayment Assistance Program (JRJ) offers critical support to relieve the pressure of student loan debt for public defenders and prosecutors. We are grateful that the committee has doubled the appropriation level for the John R. Justice program to \$4 million for this year, but for this program to have a meaningful national impact, it should be funded at the authorized level of \$25 million.

[This statement was submitted by Radhika Singh, Vice President]

#### PREPARED STATEMENT OF NATIONAL MARINE SANCTUARY FOUNDATION

Chairwoman Shaheen, Ranking Member Moran, and members of the subcommittee, thank you for the opportunity to submit written testimony regarding appropriations for the National Oceanic and Atmospheric Administration (NOAA) in Fiscal Year (FY) 2023. On behalf of the National Marine Sanctuary Foundation, I thank the subcommittee for the \$4.5 million increase in the Marine Sanctuary Program (ORF) funding and \$1 million increase in Marine Sanctuaries Construction (PAC) funding for FY 2022, and language supporting expansion of the National Marine Sanctuary System. As supporters, stakeholders, and partners of America's National Marine Sanctuary System, we strongly urge the Committee to:

1. Appropriate at least \$95.5 million in National Marine Sanctuaries in FY 2023.
2. Direct NOAA to prioritize programs in sanctuaries.
3. Cap corporate fees to no more than 5 percent of the annual appropriations.
4. Address Section 304(f) of the National Marine Sanctuaries Act.

#### OFFICE OF NATIONAL MARINE SANCTUARIES

NOAA's Office of National Marine Sanctuaries (ONMS) serves as the trustee for a network of 15 national marine sanctuaries and two marine national monuments that encompass over 620,000 square miles of marine and Great Lakes waters. The National Marine Sanctuary System conserves some of the Nation's most critical natural, historic, and cultural resources.

The conservation of marine ecosystems is vital to maintaining a healthy ocean and Great Lakes, sustaining productive coastal economies, and addressing climate change. According to the Bureau of Economic Analysis, the marine economy accounted for \$397 billion of U.S.GDP in 2019. Tourism and recreation accounted for the most significant portion, \$234 billion of the gross output, and marine living resources accounted for \$26.6 billion. Both sectors depend on a healthy ocean. Sanc-

<sup>11</sup> See e.g.; Hanson, M., December 5, 2021, Average Law School Debt, Education Data Initiative, EducationData.org; and Hess, A. J., Dec 22, 2022, U.S. Student Debt Has Increased by More than 100 percent Over the Past 10 Years, CNBC.com.

tuaries drive the growth of the blue economy through fishing, diving, recreation, hospitality, and tourism.

The ocean is central to mitigating climate change, absorbing 90 percent of the climate system's excess heat. Climate change is disproportionately impacting the ocean and its impacts threaten the physical well-being, economic prosperity, and food security of communities along our coasts and businesses that rely on marine resources. National marine sanctuaries and marine national monuments are a key part of the solution to ocean climate impacts. They protect ecosystems that remove atmospheric carbon and store it in marine sediments and habitats, safeguard coastal communities from flooding and storms and reduce non-climate stressors to support ecosystem resilience.

*For Sanctuaries and Marine Protected Areas ORF account, we urge Congress to provide at least \$87 million.* ONMS manages more ocean and Great Lakes area than the entire National Park Service on a significantly lower budget. This is the minimum level of funding necessary to advance conservation and restoration in U.S. waters while addressing the threats of biodiversity loss, climate change, and inequitable access to nature. There are three sites currently in the designation process as national marine sanctuaries, four sites on the nomination inventory awaiting action, and one site under consideration for the inventory. These sites have strong community-based support and four were nominated by Indigenous communities. Engaging communities as stewards of these protected waters make sanctuaries unique and provides a participatory approach to conservation. With additional resources, ONMS can engage communities throughout the sanctuary nomination and designation processes.

*For Marine Sanctuaries PAC, we urge Congress to provide at least \$8.5 million.* This funding will support the replacement or repair of vessels that are mission-critical. ONMS maintains a fleet of small boats that allows managers and partners to assess, monitor, research and protect national marine sanctuaries. These efforts include responding to entangled whales, conducting scientific missions, maintaining mooring buoys, and enforcing regulations. Increasing demands on an aging fleet lead to higher operating costs and challenges to maintaining safe, efficient, and effective operations. To continue on-the-water science and conservation programs that strengthen the management of our ocean and Great Lakes, investment in recapitalizing aging vessels across the National Marine Sanctuary System in addition to upgrades, retrofits, and life-cycle extensions is critical. Funding would also support improvements for visitor centers, facilities and signage, and ADA compliance that anchor tourism and recreation in communities and enhance equitable access to nature.

In October 2022, the Nation will mark the 50th anniversary of the National Marine Sanctuaries Act. As we move towards this anniversary, we need to invest in America's protected waters, and the communities and businesses that depend upon them. The Build Back Better bill proposed critical investment in ONMS facilities across the country. For the anniversary, we urge the subcommittee to create a special investment of \$25 million in PAC for the next 5 years to improve facilities.

#### PRIORITIZING NATIONAL MARINE SANCTUARIES AND MARINE NATIONAL MONUMENTS

Marine sanctuaries and monuments protect nationally significant areas in our ocean and Great Lakes akin to national parks and national wildlife refuges. Because of their special designation and NOAA's responsibility to hold them in trustee, the Department of Commerce and the agency should prioritize investment in these areas. We appreciate Congress including report language in Consolidated Appropriations Act for FY 2022 for National Ocean Service (NOS) to prioritize marine debris cleanup efforts within marine sanctuaries and marine national monuments. We request the subcommittee expand this language to include other accounts within NOAA, specifically, Navigations, Observation and Positioning, Coastal Science and Assessment and Coral Reef Conservation Program within NOS, Protected Resource Science and Management and Habitat Conservation and Restoration within NMFS, and Climate Research and Ocean, Coastal and Great Lakes Research within OAR. In addition to the general provision above, we respectfully request funding for sanctuaries Line Offices. We request this funding above the President's FY 2023 Budget request.

*National Ocean Service (NOS).*—We commend the Coral Reef Conservation Program and the Office of Response and Restoration's Marine Debris Program for supporting work in sanctuaries and monuments. We request support in the following accounts:

- \$15 million within the Navigation, Observation, and Positioning to: characterize and monitor marine ecosystems and living resources; understand and predict impacts from climate change; prioritize and synthesize long-term data collec-

tions; advance technologies for biological observing; and develop targeted modeling, web-enabled ecosystem trends, and other tools to inform adaptation strategies.

- \$5 million within the Office of Response and Restoration for marine debris removal in sanctuaries and monuments to enhance water quality and reduce the impacts of debris on resources.
- \$1 million within the Coral Reef Conservation Program to support the MPA Center providing technical assistance to Pacific Islands, Caribbean, and international partners, complementing USAID.
- \$10 million within National Centers for Coastal Ocean Science (NCCOS) for biogeographic assessments and characterizations in sanctuaries and monuments to evaluate regulatory and management decisions, and grants to non-federal partners for targeted research on priority management issues.
- \$5 million within the Integrated Ocean Observing System (IOOS) program to support the collection, management, accessibility and distribution of critical natural and archaeological data and information.

*National Marine Fisheries Service (NMFS).*—We commend the Office of Habitat Conservation for their strong support for work in sanctuaries. We request support in the following accounts:

- \$100 million for Habitat Conservation and Restoration within the National Marine Fisheries Service and dedicate \$40 million to support habitat restoration in U.S. waters, with the increase directed for restoration in national marine sanctuaries and marine national monuments and assessing blue carbon sequestration.
- Funding for the Office of Law Enforcement to increase enforcement in sanctuaries, especially those like the Florida Keys where there are zone programs.
- For Protected Resources Science and Management, we request an increase of \$10 million to support species recovery grants. Sanctuaries facilitate partnerships across sectors and can effectively develop best practices and models for improving science and management for protected species.
- For the Integrated Ecosystem Assessment Program, we request \$5 million to directly support the science needs and management of sanctuaries and monuments.

*Oceanic and Atmospheric Research (OAR).*—Sanctuaries act as living laboratories for stewardship, education, restoration, and science to address climate impacts. Scientists across NOAA are increasing our understanding of the climate drivers, conditions, trends, and predictions affecting our ocean through research conducted in sanctuaries.

- Within OAR's climate research, we request \$5 million to support climate science in sanctuaries and monuments.
- Within the Office of Exploration and Research, \$6 million to support and conduct critical operations in the National Marine Sanctuary System, with emphasis on the Pacific Islands Region, Great Lakes, and Gulf of Mexico.
- \$3 million in the Ocean Acidification Program to focus research on sanctuaries and monuments aligned with the current OAP Strategic Plan.
- \$3 million for NOAA Research Laboratories to support the design, construction, and installation of research and monitoring instruments in sanctuaries and monuments.

#### OFFICE OF MARINE AND AVIATION OPERATIONS (OMAO)

Within OMAO, we request \$3 million in dedicated funds to support operations in the National Marine Sanctuary System using NOAA Ships and uncrewed systems to address science and management needs and provide increased access to and on water presence for NOAA and partners in these protected areas.

#### CAP FOR NOAA ADMINISTRATIVE COSTS

We urge the subcommittee to cap NOAA's and NOS's corporate and administrative costs at five percent of total ORF appropriations for the account. In fiscal year 2021, ONMS paid over \$7 million in administrative and corporate costs to NOAA. ONMS shoulders a disproportionate share of corporate expenses and direct bills because other programs are exempt from such fees. Rather than ONMS and other non-exempt programs shouldering these costs, we urge this subcommittee to cap costs and require NOAA budget these expenses directly. Direct accounts for NOAA's and Line Offices' Administration, management, and corporate services would be transparent and allow Congress to appropriate actual costs for these expenses. More im-

portantly, it ensures NOAA has the necessary and deserved budget for administration and management without impacting program and mission delivery.

*Suspend Section 304(f) of the National Marine Sanctuaries Act*

Section 304(f) of the National Marine Sanctuaries Act is outdated and should be repealed as demonstrated in NOAA's findings for Malloes Bay-Potomac River and Wisconsin Shipwreck Coast National Marine Sanctuaries. With only 1.9% of the U.S. marine environment protected outside of the central Pacific, our Nation needs to increase the level and scale of marine protected areas to conserve biodiversity and all its contributions to people and the economy. National marine sanctuaries are an effective and cooperative approach to increase protection. We urge the subcommittee to include language to strike Section 304(f) or suspend the provision in FY 2023.

Thank you for this opportunity to provide testimony. Robust funding will ensure sound management of these treasured places through strong community engagement in stewardship; support of mission-critical tools; active restoration of marine environments; preservation of maritime resources; and improved understanding of ecosystems. We look forward to working with the subcommittee during the FY 2023 appropriations process.

[This statement was submitted by Ms. Kristen J. Sarri, President and CEO]

PREPARED STATEMENT OF THE NATIONAL OCEAN AND COASTAL SECURITY

Mrs. Chairwoman and Members of the subcommittee, this joint statement is submitted on behalf of the non-profit organizations listed above who share a deep concern for the health of the Nation's oceans, coasts, and Great Lakes.

The ocean, coasts, and Great Lakes are experiencing dramatic changes from sea level rise, increasing coastal storm frequency, coastal flooding, erosion, hypoxia, harmful algal blooms, ocean acidification, biodiversity loss, and more. Many of these changes are caused by climate change, which is disproportionately impacting the ocean. Warming waters are changing ocean circulation and chemistry, raising sea levels, increasing storm intensity, and changing the diversity and abundance of marine species. These impacts weaken marine ecosystem's ability to provide critical ecological services and natural infrastructure for climate resilience. This threatens the physical well-being, economic prosperity, and food security of communities along our coasts and businesses that rely on marine resources and transportation.

The most recent State of U.S. High Tide Flooding report recorded record high global sea levels and some regions across the country are seeing up to 1,100 percent increases in high tide flooding. At the same time, the population in coastal areas continues to increase and nearly 40 percent of coastal residents are vulnerable communities—the elderly, children, and the poor. This interface of coastal change and increasing coastal populations is driving the need to enhance coastal community adaptation, mitigation, and resilience capacity. Our coastal organizations, in partnership with the National Oceanic and Atmospheric Administration (NOAA), are poised to play a leading role in addressing these continually evolving ocean, coastal, and Great Lakes challenges and helping people where they live.

The Infrastructure Investment and Jobs Act (IIJA) recognizes the importance of coastal infrastructure—and the critical role of NOAA and its partners—in addressing coastal community adaptation, mitigation, and resilience. The IIJA included one-time investments of \$47 billion for resiliency with \$2.6 billion of that amount going to NOAA. The NOAA funds include amounts for data acquisition, marine debris, forecasting and modeling, regional management, projects for habitat restoration and community resilience and coastal and ocean observing. Our organizations thank Congress for making these significant investments.

The IIJA makes impressive strides to advance ocean, coastal, and Great Lakes resilience, yet these investments are only an initial down payment on the full need. Coastal communities are looking at multi-billion dollar price tags to bolster themselves from rising seas and associated coastal hazards. For example, Harris County, Texas planners estimate it will cost more than \$30 billion to provide protection against major 100-year flood events. This is over 10 times the investment to NOAA under IIJA. The economic and social cost of inaction is exorbitant—Hurricane Harvey in 2017 cost \$125 billion in damages and led to the deaths of 68 people while causing the third 500-year-flood in a 3 year period. Studies show that investments in coastal resilience work. A project supported by NOAA and its partners in Harris County—Exploration Green—created a wetland to absorb floodwaters, and even though the project was in the early stages of development when Hurricane Harvey hit, it protected 150 homes from flooding, and now it protects over 3,000 homes from 100-year and 500-year flood events.

Our annual appropriations request for FY 2023 and ensures the full impact of the IJJA investments are realized. The immediate and long term success of infrastructure investments depend on community engagement, planning, analysis of options and implementation, and stewardship of newly restored areas—all activities that were not supported under the IJJA. Increased capacity is needed to work with local communities to support and implement these projects, as well as manage the restored areas. Furthermore, many of our programs have significant educational and outreach mandates that complement the development of coastal infrastructure, but were not funded in the IJJA. Education, outreach, and training within coastal communities can both explain the value of coastal infrastructure and improve community resilience through planning and preparedness.

Our organizations stand in strong support of NOAA's ocean, coastal, and Great Lakes research, observing, conservation, management, stewardship, training, and education programs which advance coastal resilience. We support the following investments in FY 2023 appropriations to ensure robust investments in coastal resilience as well as capacity to implement the IJJA:

\$140 million for the National Sea Grant College Program and \$18 million for Sea Grant Aquaculture..	\$108.5 million for Coastal Management Grants and \$64.782 million for Coastal Zone Mgmt. and Services
\$87 million for National Marine Sanctuaries operations, research, & facilities and \$8.5 million for procurement, acquisition & construction.	\$42.5 million for National Estuarine Research Reserve System operations and \$10 million for procurement, acquisition & construction
\$75.3 million for the Regional Integrated Ocean Observing Program.	\$34 million for National Ocean and Coastal Security Fund
\$2.5 million for Regional Ocean Partnerships .....	

*National Sea Grant College Program.*—The National Sea Grant College Program Act authorizes the awarding of grants and contracts to initiate and support programs at Sea Grant colleges and other institutions for research, education, and advisory services in any field related to the conservation and development of marine resources. A joint federal, State, and local investment, Sea Grant provides solutions for the issues affecting our Nation's coastal communities (including the Great Lakes, Gulf of Mexico, and communities on the Atlantic, Caribbean, and Pacific coasts), yielding quantifiable economic, social, and environmental benefits. Sea Grant is a unique university-based program within NOAA that awards over 90% of its appropriated funds to coastal States through a competitive process to address issues identified as critical by coastal communities throughout the United States. Sea Grant fosters cost-effective partnerships among State universities, State and local governments, NOAA, and coastal communities and businesses, leveraging nearly \$3 for every \$1 appropriated by Congress. In 2020 the Sea Grant program helped generate an estimated \$520 million in economic benefits; created or supported 11,000 jobs; created or sustained 1332 businesses; provided 34 State-level programs with funding that assisted 285 communities improve their resilience; helped over 11,000 people adopt safe and sustainable fishing practices; helped restore or protect an estimated 4.2 million acres of habitat; and supported the education and training of nearly 2000 undergraduate and graduate students.

*The Integrated Ocean Observing System (IOOS).*—The IOOS Regional Associations (RAs) work with Tribal, State, regional and Federal agencies to design and operate regional observing systems which provide actionable information to a variety of stakeholders. IOOS efficiently links observation to modeling via data management in order to improve the safety and efficiency of maritime operations, more effectively protect and restore healthy coastal ecosystems, reduce public health risks, and to mitigate the effects of coastal hazards including flooding. The IOOS regional network enables NOAA to more efficiently achieve their goals by increased access to non-Federal data sources and by developing tailored information products that address the unique needs of users around the Nation. The FY 2023 request supports the core operation of these regional systems allowing them to continue critical observations and to provide that information in useful formats, in a timely manner. In addition, the support will allow for repairs to aging infrastructure and modernization of the system to better provide information on changing conditions including biology and marine life.



*Coastal Zone Management (CZM) Programs.*—The 34 State and Territory CZM Programs, in partnership with the National CZM Program, support the congressionally recognized priority of the effective management, beneficial use, protection, and development of the coastal zone. The demands on CZM Programs have increased with continuously more complicated balancing of coastal zone uses and needs for conservation, while emerging issues including sea level rise, increased coastal storm frequency, and other coastal hazards such as coastal flooding and erosion threaten the lives and livelihoods of coastal communities. Additionally, IIJA provided for \$207 million for habitat restoration projects under the CZMA placing increased demands for directed project execution on the CZM Programs without providing resources to address basic capacity needs. While the IIJA funds do address some components of the extensive needs for coastal resilience, there remain critical gaps that are not addressed which are supported by the annual appropriations for Coastal Management Grants. These gaps include vulnerability assessments; long-term resilience planning; and project planning, design, engineering, and implementation for green and gray infrastructure projects with coastal community resilience benefits. To ensure the effective implementation of this new legislation and the continuation of comprehensive coastal resilience efforts, it is imperative that the Coastal Management Grants be funded at a level that ensures the States and Territories have the necessary capacity to meet these mandates.

*The National Estuarine Research Reserve System (NERRS).*—The NERRS include 30 special coastal places (Reserves), encompassing more than 1.4 million acres. Over 50 years, and in times of crisis, Reserves have become trusted members of coastal communities. The NERRS is a time-tested, mission-ready program that is prepared for growth and has a proven track record of delivering the information and solutions communities need to address climate change and many other challenges. Communities look to Reserves as partners in addressing the challenges of a changing coast and as places for safe outdoor experiences that are essential to public health. An increase in program funding will send more dollars to each State and enhance the NOAA services each Reserve and its communities receive. The increase will support NERRS geographic growth: there are two proposed reserves in Louisiana and Wisconsin in the designation pipeline. A funding increase will also deepen and broaden the impact of national programs that make coastal communities and the Nation more resilient, including the NERRS System-Wide Management Program, Coastal Training Program, Collaborative Research competitive grant program, and Davidson Graduate Research Fellowship. Additionally, funding for the NERRS will strengthen the impact of investments made through the infrastructure bill. Reserves support jobs, contribute to the economy, and provide much-needed refuge, especially during the pandemic.

*National Marine Sanctuaries Program and Habitat Restoration.*—The National Marine Sanctuary System encompasses over 600,000 square miles of marine and Great Lakes waters protecting ecologically and biologically significant habitats. Sanctuaries serve as living laboratories for stewardship, education, restoration, and science to address climate impacts. Sanctuaries also bolster tourism and robust recreational industries, promote sustainable visitation, engage businesses in stewardship, and drive the growth of the blue economy. Communities across the Nation can nominate their most treasured marine and Great Lakes places for consideration as sanctuaries. Engaging communities as stewards of these protected waters provides a comprehensive, highly participatory approach to managing and conserving marine and Great Lakes ecosystems. The Office of National Marine Sanctuaries (ONMS) needs the resources to properly engage communities throughout the sanctuary nomination and designation process.

ONMS did not receive any IIJA funds. The FY23 request will ensure that ONMS has the resources to conduct scientific research, effectively manage sanctuaries and designate new ones, enforce regulations, and engage the public in stewardship. Funding would support the Administration's initiation of the designation process for sanctuaries in the ONMS Inventory and complete the proposed Papahānaumokuākea, Lake Ontario, and Chumash Heritage sanctuaries' designation. There are an additional four sites nominated for designation in inventory awaiting action, and one site under consideration for the inventory. This funding level would also support the replacement or repair of vessels that are mission-critical to operations, management, and enforcement and provide investments that create jobs through shipbuilding.

*The Regional Ocean Partnerships (ROPs).*—The four ROPs play a unique role in facilitating collaboration across State coastal agencies, including State and Territory CZM Programs, Tribes, Federal agencies, and other stakeholder groups, to manage the Nation's coast and enhance coastal resilience. The IIJA provides significant resources to support the four ROPs, Tribal engagement, and ROP equivalents in re-

gions without an ROP. IIJA funding together with sustained annual appropriations will enable the ROPs and their equivalents to tackle increasingly complex coastal issue in a coordinated way and to engage Tribes who are a critical partner in managing the Nation's coasts who have often been left out of these coastal management discussions.

*The National Ocean and Coastal Security (NOCSA) Fund.*—The NOCSA Fund provides grants to non-profit organizations, academic institutions, for-profit organizations, and State, Territory, local, municipal, and Tribal governments for the purpose of investing in conservation projects that restore or expand natural coastal features that minimize the impacts of storms and other naturally occurring events on nearby communities. Increased resources under IIJA and sustained annual appropriations will enable coastal communities to tackle the vast need for coastal habitat restoration and community resilience projects across the Nation's coasts.

Ocean, coastal, and Great Lakes research, education, conservation, and resource management programs funded by this subcommittee are investments in the future health, resiliency, and well-being of our coastal communities which will result in returns of improved quality of life, as well as environmental and economic outcomes many times over the Federal investment.

Thank you for the opportunity to provide this joint statement.

---

#### PREPARED STATEMENT OF NATIONAL OPINION RESEARCH CENTER (NORC)

The National Opinion Research Center (NORC) at the University of Chicago appreciates the opportunity to provide testimony on the fiscal Year 2023 Census Bureau ("the Bureau") budget request. In particular, we focus on the Bureau's proposed "Ask U.S. Panel" pilot project, for which the Bureau has not requested funding as part of its FY 2023 request despite its stated plans to continue to expand the Program and Pilot over the next year.

#### ABOUT NORC

NORC is an objective, non-partisan research institution that delivers reliable data and rigorous analysis to guide critical programmatic, business, and policy decisions. We have been successful in utilizing our well-established surveys to compile reliable data for Federal agencies, private sector clients, and others for over 75 years. This collection of surveys includes the "AmeriSpeak" online probability-based panel for rapid turnaround studies, which has been in place since 2016. Given our experience with the "AmeriSpeak" panel, we have firsthand knowledge of the time, resources, and plans needed to successfully execute a panel like the one the Bureau is seeking to create via the Ask U.S. Panel.

#### CONCERNS ABOUT THE ASK U.S. PANEL

The Ask U.S. Panel, first proposed under the Bureau's June 2020 Notice of Funding Opportunity, was intended to "establish a research platform that is developed and maintained by a third-party collaborator but, open to government and other non-profit researchers and policy makers that can allow a more frequent measurement of the population and can include repeated measures designs." The Bureau awarded the project to RTI International through a cooperative agreement.

We have numerous concerns regarding the development of the Panel, including the use of a cooperative agreement, the duplication of resources already existing in the private sector, and the diversion of taxpayer dollars and Bureau personnel from other important priorities related to the Bureau's unique functions. However, our main concern is the lack of transparency surrounding the Bureau's plans for the Panel. Since awarding the cooperative agreement in 2020, the Bureau has avoided numerous requests from stakeholders for information about its methodology, data collection processes, and intended uses for the Panel.

This lack of transparency, combined with the rapid implementation of the Panel, raises concerns regarding the need, validity, and usability of the Panel. The Bureau has pursued rapid implementation of new data products and data collection programs in recent years. While NORC applauds the Bureau's recent innovations, we suggest that additional diligence may be necessary to ensure the Ask U.S. Panel fulfills its intended purposes and that the Bureau communicates with its users on the best fit for each of its products. Recent Federal Register Notices and statements under the Paperwork Reduction Act (PRA) from the Bureau on the Ask U.S. Panel indicate that the plans and methodology are rapidly evolving. The Bureau must be transparent about its methodology and planned implementation to ensure this product produces valid and usable results and is not a waste of taxpayer dollars.

To this end, stakeholders have repeatedly reached out to the Bureau for additional information on this project and the Bureau has been dismissive and/or non-responsive to these requests. This lack of transparency by the Bureau is evidenced in their lack of response to stakeholder comments through the PRA process (comments submitted on February 4, 2022; March 29, 2022; and May 3, 2022). The lack of consideration by the Bureau of public comments calls into question its commitment to the consultative process established by the PRA and the transparency of the Bureau in its actions. We note that in a recent Director's blog post Director Santos stated, "An important aspect of that is cultivating trust with all our Nation's communities, be they urban or rural, low-income or high income, and regardless of race or ethnicity or other socio-demographic groups. That is why seeking, listening to and incorporating feedback is critical to garnering trust from the full range of our Nation's communities. It also promotes the production of relevant, quality data and therefore facilitates excellence at the Census Bureau."<sup>1</sup> NORC agrees with this perspective and believes meaningful engagement with the Bureau's stakeholders and transparency in the Bureau's operations are essential factors in engendering trust and confidence in the Bureau's programs and products. In the case of inquiry and feedback regarding the Ask U.S. Panel, the Bureau's actions to date, both through the PRA process and other channels, do not meet the standard laid out in the Director's blog post.

It also is notable that the Bureau did not include any references to the Ask U.S. Panel in its FY 2023 budget request despite recent Federal Register Notices indicating its plans to implement the Panel. It is unclear to us and other stakeholders how the Bureau plans to fund the Panel and how this effort fits in with the Household Pulse Surveys and High Frequency Data Program. Despite approaching the Bureau through various channels, both directly and indirectly, we have not received any clarity about how these programs interact and what funding the Bureau plans to utilize to build out the Ask U.S. Panel in the next year.

#### REQUEST FOR THE FISCAL YEAR 2023 CJS APPROPRIATIONS BILL

Given these concerns, we respectfully ask the Committee to instruct the Bureau to be more transparent with stakeholders, as well as provide more detailed information about its plans for the Panel. Providing proper oversight of the implementation of this project will ensure the scope of the Ask U.S. Panel stays within its parameters and does not waste public funds.

To that end, we request the Committee include the following language in the report accompanying the fiscal Year 2023 CJS appropriations bill.

Ask U.S. Panel Survey. The Committee is concerned about the lack of transparency related to the Census Bureau's plans for implementation of the Ask U.S. Panel Survey, particularly given the lack of congressional authorization and the expanding scope of the project since it was initially announced. The Committee also is concerned about the use of taxpayer dollars for the development of a panel survey given the wide range of options that currently exist in the private sector for these types of activities. The Committee directs the Census Bureau to provide a report to the Committee within 60 days about the panel's methodology, data collection processes, implementation, incurred and projected costs, and procurement strategy to allow the Committee to evaluate the project's use of Federal resources.

#### CONCLUSION

While the Census Bureau should be lauded for its recent innovations, the lack of transparency surrounding the Ask U.S. Panel raises serious concerns, which ultimately question the need for the Panel as a government developed program. We hope the Committee will provide active oversight to ensure the Bureau is fully transparent about its plans for this product, including responding to stakeholder requests.

Thank you for the opportunity to offer testimony on the Ask U.S. Panel.

---

<sup>1</sup> <https://www.census.gov/newsroom/blogs/director/2022/02/thinking-differently-perpetuating-excellence.html>, February 14, 2022.

## PREPARED STATEMENT OF THE NATIONAL SEAFOOD MARKETING COALITION

Dear Chairman Shaheen and Ranking Member Moran:

As you begin to prepare the fiscal Year 23 Appropriations bill, the National Seafood Marketing Coalition (NSMC) requests that you work with all of your colleagues to ensure increased funding for the Saltonstall-Kennedy (S-K) Grant Program. The NSMC includes 70 US Fisheries organizations from across the country as well as signed support from 9 separate State Legislatures.

Enacted in 1954, the S-K Act aims to “. . . aid the American commercial fishing industry by promoting the free flow of domestically produced products in commerce and developing and increasing markets for those products,” through a federal, competitive grant program. As you know, the S-K Grant Program is funded by a tariff on imported seafood and these funds are transferred from USDA into NOAA’s “Promote and Develop Seafood Products” account. The tariffs capitalizing the Promote and Develop account have increased almost every year from \$82 million in 2007 to now over \$240 million in 2021. Regardless of this dramatic and consistent increase, the S-K Grant program has stayed in the \$8M—\$12M range of Congressional funding. The fiscal year 2022 funding for the S-K Grants turned out to be \$11.8M, which is approximately 4.8% of the “transfer” from USDA. However, the S-K Act clearly States that:

(e) Allocation of fund moneys

(1) Notwithstanding any other provision of law, all moneys in the fund shall be used exclusively for the purpose of promoting United States fisheries in accordance with the provisions of this section, and no such moneys shall be transferred from the fund for any other purpose . . . (A) the Secretary shall use no less than 60 per centum of such moneys to make direct industry assistance grants to develop the United States fisheries and to expand domestic and foreign markets for United States fishery products pursuant to subsection (c) of this section;

Increased S-K funding is needed for the U.S. seafood industry now more than ever. World events have closed markets and significantly raised tariffs on many U.S. seafood exports. Moreover, because of the war in Ukraine and other U.S. policies, several foreign nations have severely restricted the import of our US seafood products and at the same time, the US Seafood market is a “center or the target” for all other foreign seafood products! (The U.S. imports approximately 90% of seafood consumed domestically). Increased S-K funding should focus on increasing domestic consumption of U.S. produced seafood as well as the secondary processing of seafood within the U.S. American fisheries are also challenged by disproportionate foreign government spending to support their fishing industries. For example, Norway spends more than 10 times the amount of money on marketing Norwegian salmon in U.S. markets as the US does on all of our seafood products, everywhere. Increased S-K allocations could, in part, help to level the playing field in promotion of U.S. produced seafood.

Recently, Congress re-established the American Fisheries Advisory Committee (AFAC Committee) to work with NOAA to prioritize and direct S-K funding. The NSMC as a representative of the Alaska and US Seafood Industry, is looking forward to AFAC’s new leadership role in the application of S-K funding. It has been 50 years since S-K funding decisions have had the industry input that was intended by the 1954 enabling legislation. According to the legislation, the purpose of S-K funding is “to assist persons in carrying out research and development projects addressed to any aspect of United States fisheries, including, but not limited to, harvesting, processing, marketing, and associated infrastructures.” The AFAC Committee, as designed, will have both geographical and experiential diversity including fishermen, scientists and regulators drawing from six regions across the country. As such, AFAC will be an effective advisory body, ensuring that increased S-K funding is strategically invested to return maximum benefit to the American Seafood Industry.

As one of the US Seafood industry’s representatives and advocates, we would like to see the S-K Grant funding begin to approach the percentage of U.S. tariffs on imported seafood that were envisioned when the original statute was passed. For FY 23, UFA encourages you to consider funding the S-K Grant program at no less than 15% of the transfer to NOAA’s “Promote and Develop Seafood Products” account derived from tariffs on imported seafood as a specific Lt numbered line item in the FY23 budget. This equates to approximately 35 million dollars, and is a step in the right direction towards the 60% language contained in the S-K Act. In future years, we recommend continued incremental increases towards the statutory 60% allocation in the SK Act.

We very much thank you for being the champion you have been for so long in our request for increased S-K Grant funding that will address the new and increased needs of America's fishing industry and ensure the new AFAC Committee's ability to maximize a newly refreshed desire for a National Seafood Marketing campaign and to finally begin addressing the rebuilding and expansion of America's Seafood markets.

[This statement was submitted by Bruce Schactler, Director]

#### PREPARED STATEMENT OF NATURAL SCIENCE COLLECTIONS ALLIANCE

The Natural Science Collections Alliance appreciates the opportunity to provide testimony in support of fiscal year (FY) 2023 appropriations for the National Science Foundation (NSF). We encourage Congress to provide the NSF with at least \$11 billion in FY 2023.

The Natural Science Collections Alliance is a non-profit association that supports natural science collections, their human resources, the institutions that house them, and their research activities for the benefit of science and society. Our membership consists of institutions that are part of an international network of museums, botanical gardens, herbaria, universities, and other institutions that contain natural science collections and use them in research, exhibitions, academic and informal science education, and outreach activities.

Scientific collections, and the collections professionals and scientists who make, care for, and study these resources, are an important component of our Nation's research infrastructure. These collections and their associated experts contribute to the expansion of our bioeconomy. Whether held at a museum, government managed laboratory or archive, or in a university science department, these scientific resources form a coordinated network of specimens, samples, and data (for example, genetic, tissue, organism, and environmental) that are a unique and irreplaceable foundation from which scientists are studying and explaining past and present life on earth.

Natural science collections advance scientific research and education, and that informs actions to improve public health, agricultural productivity, natural resource management, biodiversity conservation, and American economic innovation. Current research involving natural science collections also contributes to the development of new cyberinfrastructure, data visualization tools, and improved data management practices. A few examples of how scientific collections have saved lives, enhanced food production, and advanced scientific discovery include:

- Scientists used museum specimens in U.S. collections to gather data on the distribution of the mosquito *Culex quadrofaciatus*, which is known to carry West Nile Virus and other pathogens. They then modeled the distribution under different scenarios of changing climates to predict regions where the species may expand in the future. Predicting the spread of disease vectors such as these mosquitoes helps the health care community prepare for disease outbreaks and where they will happen.
- Researchers from Boston University documented Tau proteins in the brains of fluid preserved museum specimens of Downy Woodpecker. These proteins are also found in traumatic brain injuries in humans. Because of the life history traits of woodpeckers, the researchers argue these birds may have evolved a level of resistance to traumatic head injuries that could have implications for treatments for humans.
- Citrus bacterial canker disease wreaks havoc on fruit crops in Florida. Using plant specimens collected a century ago, scientists have analyzed the bacterium and traced its source. Knowledge of how the bacteria spreads allows scientists to develop effective control methods and to protect the U.S. citrus industry.
- When the 2001 anthrax attacks happened in the United States, specimens collected decades earlier allowed researchers from the Centers for Disease Control and Prevention to quickly identify the strain involved.

Scientific collections enable us to tell the story of life on Earth. There are more than 1,600 biological collections in the United States. These resources are the result of more than 200 years of scientific investigation, discovery, and inventory of living and fossil species. Scientists have collected and curated more than one billion specimens within those collections. This work is on-going as new questions continue to be asked and answered.

The institutions that care for scientific collections are important research infrastructure that enable other scientists to study the basic data of life; conduct biological, geological, anthropological, and environmental research; and integrate research

findings from across these diverse disciplines. Their professional staff members train future generations with the tools and expertise required to move science forward. In-house institutional staff expertise is vital to the development and deployment of this critical research infrastructure.

Recent reports highlight the value of mobilizing biodiversity specimens and data in spurring new scientific discoveries that grow our economy, improve our public health and wellbeing, and increase our National security. In 2019, the Biodiversity Collections Network issued a community-informed call for the development of an Extended Specimen Network. The report, “Extending U.S. Biodiversity Collections to Promote Research and Education,” outlines a national agenda that leverages digital data in biodiversity collections for new uses and calls for building an Extended Specimen Network. This endeavor requires robust investments in our Nation’s scientific collections, whether they are owned by a Federal or state agency or are part of an educational institution or free-standing natural history museum or another research center.

A 2020 report by the National Academies of Science, Engineering and Medicine, “Biological Collections: Ensuring Critical Research and Education for the 21st Century,” provides guidance to the NSF regarding the sustainability of living stock and natural history collections. The report argues that collections are a critical part of our Nation’s science and innovation infrastructure and a fundamental resource for understanding the natural world.

According to the U.S. Interagency Working Group on Scientific Collections (IWGSC), “scientific collections are essential to supporting agency missions and are thus vital to supporting the global research enterprise.” A 2020 report by the IWGSC, “Economic Analyses of Federal Scientific Collections,” presents a framework for estimating and documenting the long-term benefits, both monetary and non-monetary, generated by Federal institutional collections.

The NASEM, BCoN, and IWGSC reports, articulate a common vision of the future of biological collections and define a need to broaden and deepen the collections and associated data to realize the potential for biodiversity collections to inform 21st century science. Because the NSF is the only agency that supports research in all fields of science, it is ideally suited lead a national effort to build the Extended Specimen Network, which will require the engagement of computer and information scientists, geoscientists, life and environmental scientists, and anthropologists.

Collections are a critical resource for advancing the knowledge needed to address current global challenges such as climate change, biodiversity loss, and pandemics. The COVID-19 crisis has illustrated how inextricably linked humans are to the natural world. Biological collections, their extended data, and the experts that build and study them are globally important for understanding where viruses such as SARS-CoV-2 exist in nature or when they cross from their current hosts to humans.

The United Nation’s (UN) Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has warned that about a million species of plants and animals worldwide face extinction within the next few decades. This would not only be an unprecedented loss of global biodiversity but also a loss of valuable genetic diversity that has implications for human health and well-being. Robust investments must be made to support efforts to grow and digitize natural history collections and conduct critical collections-based science that can help prevent these losses.

The NSF plays a unique role in protecting and expanding access to our Nation’s scientific collections. It supports research that uses existing collections as well as studies that gather new natural history specimens. NSF’s Directorates for Biological Sciences (BIO), Geosciences (GEO), and Social and Behavioral and Economic sciences support research and student training opportunities in natural history collections. The NSF is also an important supporter of national biological research infrastructure that houses natural history collections, such as living stock collections and field stations.

The NSF funds evolving work to digitize high priority specimen collections. The result of this effort is that irreplaceable biological specimens and their associated data are now accessible through the Internet to researchers, educators, and the public. More than 130 million specimens are now online, with millions more awaiting digitization. This project involves biologists, computer scientists, and engineers in multi-disciplinary teams who develop innovative imaging, robotics, and data storage and retrieval methods. Resulting new tools and approaches expedite the digitization process and contribute to the development of new products and services of value to other industries. Museum specimens and associated data also represent an extraordinary resource for teaching core concepts in science.

An example is the multi-institutional openVertebrate (oVert) project, which creates high-resolution 3D anatomical data for scientific specimens of amphibians, rep-

tiles, fishes, mammals, and birds held in U.S. museums. Through its NSF-supported partner MorphoSource, an open-access online repository, these data have been downloaded more than 100,000 times and viewed over 1 million times by faculty, veterinarians, exhibit designers, K12 teachers, and artists resulting in more than 200 scientific publications. In addition, more than 2,000 undergraduate students have learned from these data and visualizations while studying zoology, veterinary science, art, and design.

In addition to supporting research, NSF's science, technology, engineering, and mathematics (STEM) education programs enhance the ability of museums, botanic gardens, zoos, and other research institutions to provide science learning opportunities for students. NSF's Advancing Informal STEM Learning program furthers our understanding of informal science education outside of traditional classrooms. The program makes important contributions to efforts to make STEM more inclusive of historically underrepresented groups.

#### CONCLUSION

Investments in NSF have always been in the National interest and their value continues to grow. Scientific collections contribute to improved public well-being and national economic security. It is not possible to replace this important documentation of our Nation's heritage. Specimens collected decades or centuries ago are increasingly used to develop and validate models that explain how species, including viruses, parasites, and pathogens have dispersed around the world, as well as how and when they might infect humans now and in the future. NSF is the primary funding source that provides support to institutions that preserve at-risk scientific collections. These small grants help ensure these collections are not destroyed and their data lost.

Please support funding of at least \$11 billion for NSF in FY 2023. Investments in NSF programs that support natural science collections research and education are essential if we are to maintain our global leadership in innovation and biodiversity research.

In addition to appropriations, Congress is currently considering multiple proposals to significantly expand NSF's mission and budget. The proposed investments in technological research will enable the biodiversity collections community to build the cyberinfrastructure and databases necessary to mobilize biodiversity data in ways that bolster 21st century science and drive innovation. We applaud these efforts to invest in our Nation's scientific and technological enterprise and urge that robust investments also be made in basic and foundational research.

Furthermore, we also request that Congress provide additional economic relief—such as the provisions outlined in the RISE Act (HR.869, S.289) that are now part of the U.S. Innovation and Competition Act (S. 1260)—to the U.S. research community, including natural history museums, botanical gardens, and other science centers, that have suffered significant budget disruptions resulting from reduced public attendance or closures associated with responding to the COVID-19 pandemic.

Thank you for your thoughtful consideration of this request and for your prior support of the National Science Foundation.

[This statement was submitted by Gil Nelson, PhD, President]

---

#### PREPARED STATEMENT OF THE NATURE CONSERVANCY

Chair Cartwright, Ranking Member Aderholt and members of the subcommittee, thank you for the opportunity to comment on the fiscal year 2023 (FY2) appropriations for the National Oceanic and Atmospheric Administration (NOAA). The Nature Conservancy (TNC) is a nonprofit working around the world to conserve the lands and waters on which all life depends. TNC appreciates Congress's work last year to pass the bipartisan Infrastructure Investment and Jobs Act (IIJA). These investments complement but do not supplant the need for ongoing program funding through the appropriations process. The subcommittee acknowledged that need when it included moderate but necessary program increases for NOAA in the FY22 omnibus spending bill. We again ask you to provide a robust appropriations package that will serve as the foundation for implementing the IIJA and ensuring long-term success for critical programs under the subcommittee's jurisdiction.

Investment in ocean, coastal and Great Lakes restoration and management can be part of the country's economic recovery. Each year, the ocean and coastal economies contribute \$304 billion to the Nation's GDP and 3.3 million jobs. NOAA's funding keeps that economic engine running. It helps NOAA catalyze local and regional action and reduces risk and saves money based on the tangible economic and soci-

etal benefits that natural resources provide. The demand for NOAA's products and technical and financial assistance exceeds available funding. The NOAA budget levels detailed below represent a prudent investment in the United States' future.

#### NATIONAL OCEAN SERVICE

*Title IX Fund—National Coastal Resilience Fund Grants.*—TNC supports no less than the FY22 enacted funding of \$34 million, and requests at least \$5 million be set aside for planning, technical assistance, and assessment activities. In an otherwise strong budget, the administration has proposed to terminate this critical grant program. The National Coastal Resilience Fund provides the resources and tools to build coastal resilience to avoid costly Federal disaster assistance and sustain healthy fisheries, maintain robust tourism opportunities, provide for increased shipping demands and support other coastal industries. Throughout its budget request, NOAA emphasizes the need to make its climate products and services more available to the communities that need them. It is profoundly inconsistent with that need to terminate the very grants that enable communities to reduce their climate risks. While ILJA did provide temporary supplemental funding for these grants, the reality is demand for this funding far exceeds even this increased amount at a time when the country is facing an increase in billion-dollar climate-related disasters. More funding for planning and technical assistance will help more communities access future grants and leverage other funding to implement the resulting risk reduction projects. This is particularly important in under-resourced communities that do not have the capacity to begin this work on their own and may be particularly vulnerable to disasters. TNC appreciates Congress's support for this transformational program and urges the subcommittee to continue to fund it.

*Coastal Zone Management and Services.*—TNC supports funding of no less than the requested level of \$49.48 million. This level of funding will provide for continued capacity to provide coastal resilience technical assistance to communities across the country, including additional emphasis on under-resourced and underserved communities. Continued funding of at least \$3 million for the Digital Coast Partnership will support new and improved products, services and technical assistance to communities through this public-private partnership. Funding would also support communities through the development of the next generation of coastal managers via the Coastal Management and Digital Coast Fellows programs. Providing competitive salaries and expanded recruitment efforts will enhance the ability to reach under-represented communities. This increase will support the designation process for three new National Estuarine Research Reserves in Louisiana and Wisconsin to provide better representation and connectivity of habitats across the system.

*Coastal Management Grants.*—TNC supports funding of no less than the FY22 enacted level of \$79 million for coastal zone management grants. TNC collaborates with State and territorial coastal programs around the country to meet multiple goals for coastal communities, including economic development, enhancement of public access and recreation, coastal resilience and conservation of coastal resources. After years of essentially flat funding, the ILJA provided additional but temporary funding to support State and territorial coastal zone management programs expanding coastal resilience and restoration projects. Continued funding for core grants is necessary to address the full suite of activities in the approved coastal programs.

*National Estuarine Research Reserve System (NERRS).*—TNC supports funding of no less than the FY22 enacted level of \$29.7 million. NERRS partners with States and territories to ensure long-term education, stewardship and research on estuarine habitats. The reserves advance knowledge and estuary stewardship and serve as a scientific foundation for coastal management decisions. By using local management needs to help shape research, NERRS aims to fill critical gaps. This funding would maintain the capacity of NERRS to conduct research and monitoring and incorporate this research into training and technical assistance to local communities. With the designation of the new NERRS in Connecticut earlier this year, it is important to maintain core funding so as not to dilute efforts across the system.

*Coral Reef Conservation Program.*—TNC supports the requested level of \$34 million. The modest increase will help NOAA, States, territories and community, research, and non-governmental partners address the continued decline of coral reefs. This decline has had significant social, economic and ecological impacts on people and communities in the United States and around the world. TNC works with NOAA's Coral Reef Conservation Program under a competitively awarded, multiyear cooperative agreement to address the top threats to coral reef ecosystems: changing ocean conditions, overfishing and land-based sources of pollution. Together, TNC and NOAA develop place-based strategies, measure the effectiveness of management efforts, and build capacity among reef managers.



*Sanctuaries and Marine Protected Areas.*—TNC supports the requested level of \$86.771 million. National marine sanctuaries support economic growth and hundreds of coastal businesses in sanctuary communities, preserve vibrant underwater and maritime treasures for Americans to enjoy and provide critical public access for more than 42 million visitors each year. Through a transparent, inclusive approach, the marine sanctuaries provide for the conservation of marine resources while balancing multiple uses and diverse stakeholder needs. The increased funding would enable expanded engagement with partners, underrepresented communities, Tribes and Indigenous communities; increase capacity for protection, conservation and stewardship; and support the designation process for five community-nominated candidate sites.

#### NATIONAL MARINE FISHERIES SERVICE (NMFS)

*Fisheries and Ecosystem Science Programs and Services.*—TNC supports the requested level of \$180.246 million. Science is the foundation of successful fisheries management. While many gains have been achieved, there remain unfunded opportunities in each NMFS region, especially related to electronic monitoring and reporting (EM/ER). NMFS has also begun a fisheries information management modernization effort that would enhance its capacity to take in, integrate and make accessible data from a variety of sources to improve management. Modernizing data management would support the implementation of related science efforts. This includes the proposed \$10 million for enhanced science and assessments as part of the cross-program Climate, Ecosystems, and Fisheries Initiative and the proposed \$8.669 million to enhance the ability to conduct offshore wind assessments to understand and mitigate potential impacts in support of these vital renewable energy developments. The enhanced research capacity would help fill gaps in stock productivity, fisheries adaptations, improve future projections and risk assessments and translate these efforts into management strategies to support decision-makers.

*Habitat Conservation and Restoration.*—TNC supports no less than the requested level of \$61.353 million. NOAA funding for coastal habitat restoration supports, on average, 15 jobs per \$1 million invested and up to 30 jobs per \$1 million spent on labor-intensive restoration projects. Project funds are awarded on a competitive basis and typically leverage the resources and capacity of multiple partners. While habitat restoration activities did receive a temporary supplemental increase through the IIJA, base program funding is necessary to support the timely implementation of those awards and the other core functions of the program. This includes NOAA's consultations on and implementation of Essential Fish Habitat. The Regional Fishery Management Councils address fishing impacts on these areas, and NOAA must have sufficient capacity to provide technical assistance to the councils and to work with Federal agencies to avoid, minimize and mitigate non-fishing impacts on these important fishery habitats. The proposed funding would support large-scale habitat restoration to build climate resilience as well as competitive grants for multiyear awards to develop restoration planning, project design and permitting and project implementation.

*Fisheries Management Programs and Services.*—TNC supports no less than the requested level of \$149.081 million. With a \$214 billion fisheries and seafood sector, U.S. fishing communities rely on management services and information from NOAA to make the most informed decisions on where, how and when to fish. NOAA Fisheries has made important strides in addressing these challenges and strengthening fisheries management. Support for these efforts is necessary to recover fish stocks so they can provide food and jobs now and in the future. Increased funding will enable NOAA to take the next steps to better incorporate ecosystem and changing climate considerations into management activities. The proposed \$6.155 million in funding would increase consultation capacity to assess the effects of planned renewable offshore energy activities.

*Observers and Training.*—TNC supports no less than the FY22 enacted level of \$57 million, including \$10.3 million to fully fund industry costs for at-sea monitoring in the New England multispecies fishery. This funding should cover both electronic monitoring and observers. After several years of collaborative work with fishery participants, scientists and other stakeholders, NOAA approved the New England Fishery Management Council's proposal to increase monitoring on groundfish vessels to 100 percent for a period of at least 4 years if, and only if, funding is available to support it. Because of ongoing support from Congress to develop electronic monitoring systems, fishermen can now meet the at-sea monitoring requirement with these systems or observers. Continued funding along with leveraged private funding should provide sufficient resources to aid in the near-term transition to increased monitoring and expand the use of electronic monitoring.

*Fisheries Data Collections, Surveys and Assessments.*—TNC supports no less than the requested level of \$212,095 million. Limited or poor-quality information on the status of fishery stocks undermines the effectiveness of fisheries management and can erode community support for conservation measures. Within this proposed increase, \$11.5 million would provide long-needed funding to expand surveys, sampling and analysis capabilities to better track shifting species as part of the cross-program Climate, Ecosystems and Fisheries Initiative. The funding would increase the use of technology to conduct surveys, a capacity that became increasingly important when the pandemic disrupted data collection. Also within the proposed increase, \$17.38 million would establish a national program to mitigate the potential impacts of renewable energy activities on NMFS scientific surveys.

*Pacific Coastal Salmon Recovery Fund (PCSRF).*—TNC supports the request level of \$65 million. PCSRF has funded hundreds of successful on-the-ground salmon conservation efforts, but habitat project needs exceed available funding. PCSRF has catalyzed thousands of partnerships among federal, State, local and Tribal governments and conservation, business and community organizations.

*Protected Resources Science and Management.*—TNC supports the requested level of \$239.965 million. Within this increase is \$10 million for the competitive Species Recovery Grants to enable the agency to strengthen and expand state, Tribal and territorial partnerships to address the growing number of listed species and allow for larger-scale, ecosystem-level recovery efforts. Additional listed species and emerging offshore wind activities have increased the number and complexity of NOAA's consultation and permitting requirements. Funding is needed to aid NOAA's ability to complete these requirements in a timely and predictable manner.

Thank you for this opportunity to share TNC's priorities. Please contact me if you have questions or would like additional information.

[This statement was submitted by Stephanie Bailenson, Senior Policy Advisor for the Ocean and Coasts]

---

PREPARED STATEMENT OF NEW ENGLAND INNOCENCE PROJECT AND THE NATIONAL INNOCENCE NETWORK

My name is Cynthia Mousseau and I serve as a Staff Attorney at the New England Innocence Project (NEIP). On behalf of NEIP and as a member of the Innocence Network, a coalition of approximately 60 local innocence organizations working to exonerate the innocent and prevent wrongful convictions nationwide, thank you for the subcommittee's critical funding increases and strong support for innocence and forensic science programs in FY22. Thank you also for allowing me to submit written testimony for the record as you consider appropriations requests for FY23. I urge you to please increase funding for the following programs at the Bureau of Justice Assistance at the Department of Justice and at the National Institute of Standards and Technology at the Department of Commerce, including:

- \$20 million for the Wrongful Conviction Review Program at the Department of Justice's (DOJ) Bureau of Justice Assistance (BJA) (the Wrongful Conviction Review Program is part of the Capital Litigation Improvement Program);
- \$20 million for the Kirk Bloodsworth Post-Conviction DNA Testing Program at DOJ/BJA
- \$25 million for the Department of Commerce's National Institute of Standards and Technology (NIST) to support and conduct foundational forensic science research, including \$2 million for technical merit evaluations.

These innocence and forensic science programs endeavor to increase the fairness and accuracy of the criminal legal system; address arbitrary racial disparities and inequities; provide the strongest possible forensic science tools to legal system stakeholders; and generate greater public safety for our Nation.

Data from the National Registry of Exonerations show that the number of exonerations has significantly increased since Federal innocence programs—the Bloodsworth Post-Conviction DNA Testing and Wrongful Convictions Review programs—began receiving funding in 2008 and 2009, respectively. Between 2009 and 2016, the total number of exonerations increased by 84%. This dramatic increase is in part a result of the decision to invest in these programs.

2020 set the record for the highest number of years individuals lost to being wrongfully convicted—an average of 13.4 years per exonerate. More than 27,000 life years have been lost to wrongful incarceration. The National Registry of Exonerations currently lists more than 3,100 exonerations since 1989. Half of the people exonerated are Black, and innocent Black people spend approximately 45% longer wrongfully imprisoned than innocent white people. This racial disparity holds true

across different types of convictions. Investing in innocence and forensic science programs helps to increase the accuracy, equity, and integrity of the criminal legal system.

The New England Innocence Project (NEIP), headquartered in Massachusetts, is the only innocence organization serving Vermont, Maine, Rhode Island, and New Hampshire. Federal grant funds help expand its reach into States that have insufficient resources to meet their needs. In fact, as a direct result of a grant from FY21, NEIP will be litigating its first case in New Hampshire, a State that has not enjoyed robust post-conviction litigation to date. With the support of Federal funds, NEIP has provided direct representation and/or support that has resulted in 16 exonerations over the past 17 years. 5 recently released exonerees collectively spent 160 years in prison. Additionally, NEIP has: (1) been able to provide more significant support to exonerees upon their release from prison through our Exoneree Network, which is lead and run by exonerees; (2) conducted numerous trainings throughout New England for prosecutors, defense attorneys, law enforcement, judges, and the public to raise awareness and prevent causes of wrongful conviction; and (3) expanded our staff to include work on pre-trial issues that will prevent wrongful convictions from occurring.

Cases without DNA evidence are difficult and often take many years to complete. It is a long, arduous, and resource intensive process to prove an individual's innocence after he/she has been wrongfully convicted. An average case at NEIP requires years of work and thousands of dollars to adequately investigate and litigate. During this long time period, the innocent person is languishing behind bars.

Freeing innocent individuals and preventing wrongful convictions through reform also greatly benefits public safety. Every time DNA identifies a wrongful conviction, it enables the possible identification of the person who actually committed the crime. Such true perpetrators have been identified in more than half of the 375 DNA exoneration cases. Unfortunately, many of these individuals went on to commit additional crimes while an innocent person was convicted and incarcerated in their place.

The value of Federal innocence programs and forensic science research is not only for exonerated people, but for all stakeholders in the criminal justice system. It is important to fund these important Federal programs because reforms and procedures that help to identify, remediate, and prevent wrongful convictions also enhance the accuracy of criminal investigations, strengthen criminal prosecutions, and result in a fairer and more accountable system of justice that provides true justice to victims of crime.

#### WRONGFUL CONVICTION REVIEW PROGRAM

We know that wrongful convictions occur in cases where DNA evidence may be insufficient or unavailable to prove innocence. The National Registry of Exonerations currently lists more than 3,100 exonerations since 1989, the vast majority of which did not have the presence or benefit of testable DNA. The Wrongful Conviction Review Program provides critical support to ensure that experts are available to navigate the complex landscape of post-conviction litigation, as well as oversee the thousands of volunteer hours local innocence organizations leverage to help investigate these complex non-DNA cases and support the significant legal work they require. The Wrongful Conviction Review Program has contributed to approximately 50 exonerations over the past few years with more in the pipeline.

For example, in 2019, Darrell Jones, who was wrongfully convicted of murder and served 32 years, was freed as a result of the work of the Committee for Public Counsel Services Innocence Program. The Wrongful Conviction Review Program provided funding that enabled his team to hire an investigator who identified exculpatory witnesses as well as two forensic experts. In 2020, Arturo Jimenez, who was wrongfully convicted of murder and served 25 years, was freed because the Wrongful Conviction Review program funded an investigator who uncovered key evidence that helped the Northern California Innocence Project secure his exoneration.

The Wrongful Conviction Review Program provides funding to local innocence organizations, such as NEIP, so that they may provide this type of expert, high quality, and efficient representation for innocent individuals. The program's goals also are to help alleviate burdens placed on the criminal legal system through costly and prolonged post-conviction litigation and to identify, when possible, the person who actually committed the crime.

In recent years, only a few local innocence organizations received Wrongful Conviction Review funding during each grant cycle. Even with the FY22 funding increase, there is still a need to expand this program further to resolve the long waiting lists of wrongfully convicted individuals—lists that are often hundreds of indi-

viduals long for just an individual innocence organization. These cases require evaluation, investigation, and often representation, which helps to improve the fairness and reliability of the criminal legal system. We urge you to provide \$20 million for the Wrongful Conviction Review Program in FY23. (Please note that the Wrongful Conviction Review grant program is a part of the Capital Litigation Improvement Program.)

I also urge you to include in the FY23 report for the Commerce, Justice, Science, and Related Agencies Appropriations bill the final FY22 report language for the Wrongful Conviction Review program. It described the need for legal representation and investigation services for individuals with post-conviction claims of innocence. It also directed at least 50 percent of funds appropriated to the Capital Litigation Improvement and Wrongful Conviction Review grant programs support Wrongful Conviction Review grantees providing high quality and efficient post-conviction representation for defendants in post-conviction claims of innocence. It also clarified that Wrongful Conviction Review grantees shall be nonprofit organizations, institutions of higher education, and/or State or local public defender offices that have in-house post-conviction representation programs that show demonstrable experience and competence in litigating postconviction claims of innocence. Finally, the report language directed that grant funds shall support grantee provision of post-conviction legal representation of innocence claims; case review, evaluation, and management; experts; potentially exonerative forensic testing; and investigation services related to supporting these post-conviction innocence claims.

#### THE BLOODSWORTH POST-CONVICTION DNA TESTING PROGRAM

The Bloodsworth Program supports States and localities that want to pursue post-conviction DNA testing in appropriate cases, and grantees range from State and local prosecutor offices to law enforcement agencies and crime labs. These grantees can collaborate with local innocence organizations when appropriate. For example, a grant to Arizona allowed the State's Attorney General's Office to partner with the Arizona Justice Project to create the Post-Conviction DNA Testing Project. This effort canvassed incarcerated individuals in Arizona, reviewed cases, located evidence, and filed joint requests with the court to have evidence released for DNA testing. In addition to identifying the innocent, Arizona Attorney General Terry Goddard noted that the "grant enable[d] [his] office to support local prosecutors and ensure that those who have committed violent crimes are identified and behind bars."

The Bloodsworth program is a powerful investment for States seeking to free innocent individuals and identify the individuals who actually committed the crimes. The program has resulted in the exonerations of at least 54 wrongfully convicted persons in 14 States. The person who actually committed the crime was identified in 13 of those cases. In 2020, an additional 5 people were exonerated through the program. The success of this program both in generating individual exonerations while supporting broader system review when problems arise has made it popular—DOJ has reported previously that it has received twice as many qualified applicants as it has funding to grant.

For example, Virginian Thomas Haynesworth, who was wrongfully incarcerated for 27 years, was freed thanks to Bloodsworth-funded DNA testing that also revealed the person who actually committed the crime. The culpable person in that case went on to terrorize the community by attacking 12 women, with most of the attacks and rapes occurring while Mr. Haynesworth was wrongfully incarcerated. Given the importance of this program to both innocent individuals and public safety, I urge you to provide the \$20 million to continue and expand the work of the Bloodsworth Post-Conviction DNA Testing Program in FY23.

#### FORENSIC SCIENCE IMPROVEMENT

To continue the critical work to improve forensic science, and help prevent wrongful convictions, I urge you to provide \$25 million for NIST to support foundational forensic science research, including \$2 million to conduct technical merit evaluations.

As the Federal entity that is both perfectly positioned and institutionally constituted to conduct foundational forensic science research, NIST's work will improve the validity and reliability of forensic evidence, a need cited by the National Academy of Sciences 2009 report, *Strengthening Forensic Science in the United States: A Path Forward*. NIST's reputation for innovation will result in technological solutions to advance forensic science applications and achieve a tremendous cost savings by reducing court costs posed by litigating scientific evidence.

Additionally, some forensic science methods have not yet received an evaluation of their technical merit and NIST needs additional support to conduct these vital

reviews. The forensic science activities and research at NIST will help to improve forensic disciplines and propel forensic science and the criminal legal system toward greater accuracy and reliability, and as a result, help prevent wrongful convictions and improve system equity.

#### CONCLUSION

Thank you for your leadership in ensuring the accuracy, equity, and integrity of our Nation's criminal justice system. I urge you to support all of the aforementioned programs, including the Wrongful Conviction Review and Bloodsworth grant programs, as well as NIST forensic science research. If you have questions or need additional information, please contact Jenny Collier, Federal Policy Advisor to the Innocence Project, at [jcollier@colliercollective.org](mailto:jcollier@colliercollective.org).

[This statement was submitted by Cynthia Mousseau, JD]

#### PREPARED STATEMENT OF NEW HAMPSHIRE SUPERIOR COURT

Chairwoman Shaheen, Ranking Member Moran, and distinguished members of the subcommittee, I am honored to have the opportunity to submit my testimony on behalf of our country's nearly 4,000 treatment court programs and the 150,000 people they will connect to lifesaving addiction and mental health treatment this year alone. Given the ongoing substance use crisis, I am requesting that Congress provide funding of \$95 million for the Drug Court Discretionary Grant Program and \$29 million for the Veterans Treatment Court Grant Program at the Department of Justice for fiscal year 2023.

I serve as Chief Justice of the New Hampshire Superior Court. In nearly two decades on the bench, I have never seen a program more effective than treatment courts, including drug courts and veterans treatment courts, at promoting public health while upholding the justice system's promise to protect public safety. Like many of my fellow judges, I felt frustrated by the limited options available in the traditional court model to change the behavior of offenders I was seeing in the court room repeatedly. When I began presiding over drug court in Rockingham County in 2006, I saw a new, more effective approach. Treatment court programs address the unique underlying conditions of each participant. Strong empirical evidence shows that treatment courts not only reduce crime, but also save lives and reunite families by connecting participants to evidence-based treatment services and recovery support. In my home state of New Hampshire, treatment court graduates have a 90 percent employment rate, and 78 percent of graduates do not reoffend within 2 years. New Hampshire treatment courts cost \$9 per day compared to \$84 per day it costs to incarcerate someone.

Just one of many success stories from New Hampshire is Nick, who was just 13 when his relationship with alcohol started. From there, he became more and more dependent on different substances. For a long time, he was able to hold down a job while trying to raise two children with his partner, who also struggled with addiction. But Nick's substance use caught up to him in 2012, when he was sent to prison for the first time. Nick said his time in prison hardened him, and instead of turning his life around, he just "learned new tricks" to keep up his old habits. After his first 2 years in prison, he turned to methamphetamine and heroin. He lost custody of his children and experienced homelessness and more stints in jail. Nick tried treatment but could not stay sober for long. When he came to treatment court, he was feeling hopeless and suicidal. The treatment court program provided both the accountability and the treatment he needed to change. In treatment court, Nick, like other participants, was assessed by a multidisciplinary team and given an individualized treatment plan designed by substance use treatment professionals using evidence-based methods. Instead of being put behind bars, they set a goal of and path to long-term recovery and supervised him every step of the way. The treatment court team gave Nick a new understanding of his substance use disorder and a real desire for change. Drug court also gave him something else he'd been missing: hope. I'm happy to say that Nick has been in active recovery for years. He got his driver's license back, started his own carpentry business, and got engaged. Most importantly, he was reunited with his two children, of whom he now has full custody. He is proud to be a father and says he is now "someone who shows up, and who is responsible, peaceful, and kind."

Nick isn't alone in his success. Treatment courts have connected 1.5 million people struggling with substance use and mental health disorders with evidence-based treatment options, including medication for addiction treatment when appropriate, tailored to their specific needs. Together, the court team offers the tools to overcome

substance use disorder and past trauma to create true recovery and healthy relationships.

I have seen hundreds of individuals in our justice system overcome their substance use or mental health disorders and became productive citizens in their communities. Most, like Nick, go on to start careers and raise families, and many now help others in the horrible position they were once in themselves. I can say for certain that the treatment court model deserves credit for the health and restored lives of these individuals. I can also say that New Hampshire, like many other States, is not immune to the deadly opioid epidemic. This crisis continues to bring to the fore the critical need to ensure all people, even those whose substance use leads to trouble with the law, have access to treatment, including medication for addiction treatment when appropriate. While there is no single solution to the opioid crisis, for individuals before the courts with a severe substance use or mental health disorder, treatment courts are a key solution to the crisis.

There is overwhelming empirical evidence that shows the effectiveness of treatment court programs. The Government Accountability Office finds the drug court model reduces crime by up to 58 percent. Further, the Department of Justice's Multi-Site Adult Drug Court Evaluation confirmed drug treatment courts significantly reduce both drug use and crime, while saving taxpayer money—an average of \$6,000 saved for every individual served. Other benefits include improved employment, financial stability, housing, and family reunification. Veterans treatment courts expand on the drug court model to include veteran justice outreach specialists from the Department of Veterans Affairs, volunteer veteran mentors from the community, and other local, State, and Federal resources, and have proven equally effective. It is critical that we have interventions like veterans treatment court in place to ensure that when our heroes return home, if they do struggle, they have the treatment, structure, and support to transform their lives.

Continued support for the Drug Court Discretionary Grant Program at the Department of Justice ensures the nearly 4,000 treatment courts in the United States today provide critical services to those in need, while keeping communities safe. But we know there are many individuals who still need this opportunity. I strongly urge this subcommittee to recommend funding of \$95 million to the Drug Court Discretionary Grant Program and \$29 million to the Veterans Treatment Court Grant Program in fiscal year 2023 so treatment courts in New Hampshire and across the country can continue to save lives, reunite families, and keep our communities healthy and safe.

[This statement was submitted by the Honorable Tina Nadeau, Chief Justice]

#### PREPARED STATEMENT OF NORTHWEST INDIAN FISHERIES COMMISSION (NWIFC)

Chair Jeanne Shaheen, Ranking Member Kerry Moran and Honorable Members of the subcommittee, my name is Ed Johnstone, and I am the Chair of the Northwest Indian Fisheries Commission (NWIFC). The NWIFC is composed of the 20 Tribes that are party to *United States v. Washington*, which upheld the Tribes' treaty-reserved right to harvest and manage various natural resources on and off-reservation, including salmon and shellfish. On behalf of the NWIFC, I'm providing testimony for the record on the natural resource and fishery management program funding requests for the National Oceanic & Atmospheric Administration (NOAA)/National Marine Fisheries Service (NMFS) Fiscal Year 2023 (FY23) appropriations. These programs support the management of salmon fisheries, which contribute to a robust natural resource-based economy and the continued exercise of Tribal treaty rights to fish. Given the onslaught of pressures we face, it is now more important than ever for the Federal trustee to support management, supplementation, and restoration of fisheries—vital to the Tribes physical, cultural and economic wellbeing, as well as an important link in our Nation's food supply chain.

#### SUMMARY OF FY23 APPROPRIATIONS REQUESTS

- \$70.0 million plus for NOAA Pacific Coastal Salmon Recovery Fund
- \$7.0 million for NOAA Hatchery and Genetic Management Plans
- \$43.5 million for NOAA Pacific Salmon Treaty
- \$26.5 million for NOAA Mitchell Act Hatchery Programs

The member Tribes of the NWIFC ceded much of the land that is now western Washington in exchange for reserving the continued right to harvest and manage various natural resources including salmon and shellfish. Salmon are the foundation of Tribal cultures, traditions and economies in western Washington. To ensure that Tribal treaty rights and lifeways are protected, it is essential that the Federal Gov-

ernment provide support to all aspects of salmon management including, harvest planning and implementation (e.g. Pacific Salmon Treaty), hatchery production, (e.g. Mitchell Act Hatchery Programs and Hatchery and Genetic Management Plans) and habitat protection and restoration (e.g. Pacific Coastal Salmon Recovery Fund).

#### JUSTIFICATION OF REQUESTS

*Provide, at a minimum, \$70.0 million for NOAA Pacific Coastal Salmon Recovery Fund (PCSRF) and preferably restore funding to FY02 levels (\$110.0 million)*

We respectfully request, at a minimum, \$70.0 million for PCSRF, which is an increase of \$5.0 million over the FY22 enacted level and President's Budget Request of \$65.0 million. It is worth noting that this request is a significant departure from the PCSRF peak level of \$110.0 million in FY02 or subsequent years in which appropriations were maintained upwards of \$80.0 million through FY11. We ultimately would like to see PCSRF funding fully restored to FY02 levels. This level of funding would help carry out the original congressional intent of these funds to support the Federal Government's obligations to salmon recovery and the treaty fishing rights of the Tribes. However, we understand that budget restriction may require Congress to take a more incremental approach toward this end goal.

The PCSRF is a multi-State, multi-Tribe program established by Congress in FY00 with a primary goal to help recover dwindling salmon populations throughout the Pacific coast region. Through PCSRF, Tribes work collaboratively to help protect and restore salmon habitat to increase natural salmon productivity. To accomplish this, Tribes implement scientifically based salmon recovery plans developed for each watershed in concert with federal, State, and local partners. Tribes also participate in sustainable harvest management activities such as monitoring fish abundance, which is then used to forecast adult returns and subsequently develop annual harvest rates that achieve conservation objectives and provide for Tribal and non-Tribal harvest opportunities. Since its inception, PCSRF has been the primary salmon recovery response. This has resulted in the restoration and protection of over 1.1 million acres of spawning and rearing habitat and re-established salmon access to more than 11,489 miles (as of FY20) of previously inaccessible streams in our region.

*Provide \$7.0 million for NOAA Hatchery and Genetic Management Plans (within NOAA—Pacific Salmon)*

We respectfully request \$7.0 million to support review, approval and implementation of Hatchery and Genetic Management Plans (HGMPs). We also respectfully request continued report language to ensure funding passed through to the Tribes can be used to implement approved HGMPs. We recommend that the overarching Pacific Salmon account be funded at \$78.0 million to accommodate this request and ensure maintenance of existing programs and agency requests. This recommendation is \$11.0 million above FY22 enacted level of \$67.0 million and \$4.858 million above the President's Budget Request of \$73.142 million.

Review and approval of HGMPs is necessary to provide hatcheries with Endangered Species Act (ESA) coverage and implementation of the plans is necessary to accomplish their conservation goals. NMFS uses the information provided by HGMPs to evaluate the impacts of State and tribally operated hatcheries on salmon and steelhead listed under the ESA and recommends improvements to operations to meet conservation objectives. With the lack of improvement in salmon stocks, hatchery operations have become even more important to achieving recovery goals and maintenance of salmon fisheries. However, the lack of improvement in natural origin salmon has also resulted in scrutinizing hatcheries for their potential genetic impacts on natural spawning populations. This has resulted in increasingly specific performance standards and management expectations included in Tribes' HGMPs.

Implementing the activities described in the HGMPs includes biological monitoring and evaluation of hatchery programs. Monitoring and evaluation assess whether the goals of the program are being met and ensures the compatibility of the program with regional and co-management salmon recovery plans. These monitoring and evaluation programs generally involve various methodologies to monitor the juvenile fish released by the hatchery, sample the returning adult fish, and evaluate the interactions of hatchery and wild fish.

Tribes need help addressing the escalating costs of hatchery management associated with the monitoring and adaptive management practices called for by HGMPs. For example, requirements to closely monitor natural and hatchery produced salmon interactions on the spawning ground are costly and time-intensive. Therefore, it is essential that HGMP funding is increased to address these rising costs and that flexibility is provided to ensure that funding can be used by the Tribes to implement

the plans' recommendations, which both the Federal Government and Tribes have extensively invested in.

*Provide \$43.5 million to implement the National commitments in the Pacific Salmon Treaty agreements (within NOAA—Salmon Management Activities)*

We support the Pacific Salmon Commission (PSC) U.S. Section's FY23 request of \$43.5 million for the Pacific Salmon Treaty line within Salmon Management Activities, an increase of \$4.0 million over the FY22 enacted level of \$39.5 million. Included in this request is \$3.06 million for annual operational costs for hatchery conservation programs, \$2.33 million for habitat restoration for Puget Sound critical stocks, \$4,110,000 for Southeast Alaska Chinook Salmon Fishery mitigation, and \$4,470,000 to increase prey availability for Southern Resident Killer Whales.

The FY23 request would support implementation of the National commitments in the renegotiated Pacific Salmon Treaty (PST) Annex Chapters. The recommended funding is also necessary to meet the requirements of the biological opinion for listed species and supports effective, science-based implementation of negotiated salmon fishing arrangements and abundance-based management approaches for Chinook, southern Coho, and Northern Boundary and Transboundary River salmon fisheries.

Adult salmon returning to most western Washington streams migrate through U.S. and Canadian waters and are harvested by fishers from both countries. For years, there were no restrictions on the interception of returning salmon by fishers of neighboring countries. Eventually, the U.S. and Canada agreed to cooperate on the management of salmon by developing and ratifying the PST in 1985. The PSC was created to implement the PST and is responsible for developing management recommendations and assessing compliance with the treaty. Negotiations to revise the provisions of the Annex Chapters were successfully completed in 2018 and 2019. These chapters contain the specifics for implementing the treaty for each species in each geographic area. These revised chapters represent the combined efforts of the participants to ensure healthy salmon populations for the next 10 years, and as such include commitments from the U.S. to improve current management strategies.

*Provide \$26.5 million for NOAA Mitchell Act Hatchery Programs (within NOAA—Salmon Management Activities)*

We respectfully request \$26.5 million for the Mitchell Act Hatchery Programs, an increase of \$3.5 million over the FY22 enacted level of \$22.0 million. The request for this additional increase in Mitchell Act funds is needed to ensure that mitigation hatcheries operate at full production level to meet Federal obligations. This program is funded through the Salmon Management Activities subactivity.

Mitchell Act hatchery production is intended to mitigate for fish and habitat loss caused by the Federal hydropower dam system on the Columbia River. Funding for these programs supports the operation and maintenance of hatcheries that release around 42 million juvenile salmon and steelhead in Oregon and Washington. This represents about 30 percent of the total hatchery salmon and steelhead released in the Columbia River Basin. Adequate funding for Mitchell Act hatcheries is of particular importance to us because it supports salmon production for Tribal treaty harvest along the Washington coast. Additionally, adequate funding to ensure full production from the Mitchell Act hatcheries dampens the impact of Canadian and Alaskan ocean fisheries on Washington and Tribal fisheries under the terms of the PST.

#### CONCLUSION

The treaties between the Federal Government and Indian Tribes, as well as the treaty-reserved rights to harvest, manage and consume fish and shellfish, are the "supreme law of the land" under the U.S. Constitution (Article VI). It is, therefore, critically important for Congress and the Federal Government to provide continued support in upholding the treaty obligations and carrying out its trust responsibilities. An important component of these obligations is to fully fund the sustainable salmon fisheries management programs that provide for improved harvest planning, hatchery production and habitat management. We respectfully urge you to continue to support our efforts to protect and restore our treaty-reserved rights and natural resources that in turn will provide for thriving ecosystems and economies for both Indian and non-Indian communities alike. Thank you.

[This statement was submitted by Ed Johnstone, Chairman]



## PREPARED STATEMENT OF OPENSECRETS

Dear Chairman Shaheen, Ranking Member Moran, and distinguished members of the Senate Appropriations subcommittee on Commerce, Justice and Science, and Related Agencies:

Thank you for the opportunity to submit written testimony before the Committee to discuss fiscal year 2023 budget priorities regarding the modernization of the Foreign Agents Registration Act (FARA), a statute intended to inform the American public of foreign influence and lobbying operations attempting to impact U.S. policy or public opinion.

This written testimony is respectfully offered on behalf of OpenSecrets to the Committee for use during its consideration of Department of Justice funding and for inclusion in the official committee record.

OpenSecrets is a nonpartisan nonprofit research organization tracking money in U.S. politics and its effect on elections and public policy. Our vision is for Americans across the ideological spectrum to be empowered by access to clear and unbiased information about money's role in the U.S. political system and to use that knowledge to strengthen our democracy.

Activities of foreign agents and lobbyists divulged under FARA are a subject of sustained public interest. In this testimony, we respectfully request that the Committee include report language directing a review of the U.S. Department of Justice's implementation of FARA and a comprehensive audit of the use of the Lobbying Disclosure Act (LDA) exemption that will both be publicly accessible.

A publicly-accessible report to Congress is necessary to evaluate the feasibility and steps needed to require all filings by foreign agents to be made in an electronic, machine-processable electronic format yielding structured data. This would allow users to search and sort or download FARA data, ensuring the same level of accountability from lobbyists representing foreign interests as domestic ones.

The Justice Department Inspector General's 2016 "Audit of the National Security Division's Enforcement and Administration of the Foreign Agents Registration Act"<sup>1</sup> included 14 recommendations to improve NSD's enforcement and administration of FARA. With regard to e-filing, the inspector general report recommended "that e-file develop with timeliness as a consideration."

Despite recommendations from the Department's Inspector General and outside experts, the Justice Department has been slow to implement changes to improve the public's access to information about foreign influence and lobbying intended to impact U.S. policy or public opinion.

In September 2019, the Department of Justice launched new features enabling registrants to submit data through a web-form yielding some standardized data. While we believe this is a step in the right direction, only initial registrations are required to be submitted this way, so information reported in some of the most important records such as semi-annual supplemental statements may remain trapped in less accessible formats.

Continuing implementation of a modernized FARA reporting system that collects detailed structured data would provide the tools necessary for better oversight and ensure information about foreign influence is provided in an accurate, complete, and timely manner.

The current e-filing system requires filers to submit data in either image or PDF formats. Yet, much of the supplemental, registration, and amendment information is originally produced in electronic formats, such as CSV files. Image and PDF formatted files destroy critical aspects of the included data, and cannot be marked for sensitive information or be used for automated calculations. It is virtually impossible to transform a PDF into a structured spreadsheet that supports analysis and reuse of the information. Even the basic disclosure of how much money foreign actors spend to influence U.S. policy and public opinion can be obscured, leaving the American public in the dark about how our laws are shaped and influenced.

The DOJ FARA unit should continue developing systems for users to submit information in structured data formats. A sample template could allow registrants to standardize their responses in formats that could easily be processed by computers. This would streamline the processing of data by the FARA Unit, enabling faster review and more uniform reporting.

Structured data yielded from e-filing could optimize this process, improving the quality, utility, and clarity of information collected by the FARA Unit. Structured data would also enable Federal officials to more efficiently identify potential issues with filings as they come in or even set automated detection systems.

<sup>1</sup> <https://oig.justice.gov/reports/2016/a1624.pdf>.

Examples of problems that would be ameliorated by this change include the accidental release of sensitive personal information such as bank account numbers and the prevalence of inaccurate reports to Congress caused by miscalculations or incomputable data.

Registrants working on behalf of foreign principals are only required to file a supplemental statement every 6 months and registrants often wait even longer so reported dates of receipt can sometimes occur in a different year than the work happened.

Structured data on the payment amounts registrants report in question 14(a) of the supplemental statement shows when the payments actually took place rather than just the date at the end of the reporting period covered by the supplemental statement. This would ensure totals reflect amendments or retroactively filed supplemental statements that may be filed after the Report to Congress covering a period is compiled would allow for a more complete and accurate picture of activities reported under FARA. Sometimes amendments result in a lower amount of spending being reported than was in the initial supplemental statement and other times additional previously unreported spending is reported so it could cause differences in both directions.

Cataloging information about the purpose of receipts or disbursements in the structured data would streamline extrication of activities required to be reported under FARA from any non-FARA registerable activities that may also be included in a filing.

While it is a simpler system, by way of comparison, new registrations under the LDA must be filed to Congress electronically, are published as structured data, and made available to the public. More parity between disclosure requirements under the LDA and FARA is necessary to ensure at least the same level of transparency from lobbyists representing foreign interests as domestic.

We recognize the importance of addressing concerns about information security as part of modernization. A computer virus can hide inside most types of file formats.

When accessing those files, it is important to have an up-to-date virus scanner. However, there are file formats, known as "plain-text," that are generally recognized as safe. For spreadsheets, this includes files in CSV format. For documents, this includes documents in TXT format. In addition, generating spreadsheets as CSV files, and documents as TXT files, is widely supported across many platforms, including Microsoft Office and Google Docs, so it is easy for submitters to generate the files in the required format. In addition, problems of incomplete and inaccurate data can be addressed through use of better formats in which the data is filed, including the use of forms that ensure that users file valid information.

Increased use of unique or common identifiers to represent data, and wherever possible draw the identifiers from unique IDs used by other government entities or create crosswalks would allow for more interoperability of data and for FARA Unit to validate the data upon entry. It can also increase consistency and accuracy, while making the process easier on the filer.

Using web-forms or submitting data in other structured formats across the board would allow the government to provide this information in an accessible form with little or no additional burden. FARA reporting is already conducted through an e-filing system that requires a web browser unless a registrant demonstrates limited access to the internet. Modernizing FARA's e-filing system can ultimately help ease the administrative burden associated with FARA registration.

FARA also has a number of exemptions that can be misunderstood or exploited.

One commonly used exemption enables some foreign agents to claim an exemption from FARA registration and disclosure rules if they register as lobbyists under the LDA, a disclosure statute designed to regulate the activities of domestic lobbyists. Any individuals lobbying on behalf of a foreign commercial interest, rather than a foreign government or political party, may evade FARA disclosure requirements by merely registering under the LDA.

Domestic lobbying records are already required to be filed to Congress electronically and are immediately converted to structured data that are available to the public over the Internet. More parity between disclosure requirements under the LDA and FARA is necessary to ensure at least the same level of transparency from lobbyists representing foreign interests as domestic ones.

We respectfully urge the Committee to direct the Comptroller General of the United States, in consultation with the Inspector General of the Department of Justice, to conduct a comprehensive audit of the use of the LDA exemption examining (1) whether the LDA exemption has contributed to a decline in the number of registrations under FARA; (2) whether the LDA exemption has contributed to a lack of public awareness of lobbying activities on behalf of foreign entities; (3) the impact and feasibility of phasing out the LDA exemption; and (4) how to develop policy rec-

ommendations for increasing compliance with Federal lobbying registration and disclosure requirements.

We are confident that the report will provide valuable insight to the American people and pave the way to increased transparency of the activities disclosed by those foreign agents. We urge you to appropriate the funding necessary to evaluate modernizing this invaluable resource.

Our recommendations are based on our experiences using FARA, including efforts to republish FARA data online in ways that support greater access and meaningful analysis. OpenSecrets built the Foreign Lobby Watch database containing foreign lobbying documents and data. Our reviews of the DOJ's available foreign lobbying records found significant problems with how the data is currently structured. We've designed our databases to make up for some of the shortfalls in how foreign lobbying information is currently made available to the public. Structured data directly from the government could streamline this process, improving the quality, utility, and clarity of the information collected by the FARA Unit.

Thank you for your attention to our concerns on this critical issue. We would welcome the opportunity to work with you further on this issue and make any additional recommendations about this or other important issues before the Committee.

---

#### PREPARED STATEMENT OF THE PACIFIC SALMON COMMISSION

Mr. Chairman, and Honorable Members of the Committee, I am W. Ron Allen, the Tribal Commissioner and Chair for the U.S. Section Budget Committee of the Pacific Salmon Commission (PSC). I am also the Tribal Chairman/CEO of the Jamestown S'Klallam Tribe located on the Olympic Peninsula of Washington State. The U.S. Section prepares annual budgets for the implementation of the Pacific Salmon Treaty. The implementation of the Treaty is funded through the Departments of Commerce, Interior and State.

Department of Commerce funding in support of implementing the Pacific Salmon Treaty is part of the Salmon Management Activities account in the National Marine Fisheries Service (NMFS) budget. The United States and Canada completed negotiations of revised Annex Chapters to the Treaty in 2019. Funding in the Department of Commerce budget is for the programs to fulfill national commitments created by the revised Treaty Annex Chapters. The U.S. Section recommends FY 2023 funding of \$43,500,000 to implement national commitments created by the Treaty.

The Department of Commerce principally funds programs conducted by the States of Washington, Oregon, Idaho and Alaska and the NMFS. However, the cost of programs conducted by the States to fulfill national commitments created by the Treaty continue to be substantially greater than the funding provided in the NMFS budget. Consequently, the States have supplemented the Federal Treaty appropriations from other sources, including State general funds. Many of those funding sources are limited or no longer available and this has been exacerbated by the ongoing global pandemic.

The increases in the FY 2020 budget and in the FY 2021 budget were greatly appreciated, however it falls short of what the U.S. Section estimates is needed to fully implement the revised Annex Chapters to the Pacific Salmon Treaty.

The U.S. Section recommends that the Pacific Salmon Treaty line item in the Salmon Management Activities section of the NMFS budget be funded at \$43,500,000 for FY 2023. This line item includes \$21,400,000 to provide base support for the States of Alaska, Washington, Oregon, and Idaho. NMFS activities to implement the Treaty's conservation and allocation provisions for Coho, Sockeye, Chinook, Chum, and Pink salmon fisheries is funded through overhead fees. Effective, science-based implementation of negotiated salmon fishing arrangements and abundance-based management approaches for Chinook, southern Coho, and Northern Boundary and Transboundary River salmon fisheries.

The U.S. Section recommends annual operational costs of \$3,060,000 for hatchery conservation programs and \$2,330,000 for habitat restoration for Puget Sound critical stocks, \$5,990,000 for Southeast Alaska Chinook Salmon Fishery Mitigation, and \$4,470,000 to increase prey availability for Southern Resident Killer Whales. The recommended funding includes \$6,250,000 for sound science initiatives to fill key science gaps and improve fishery management effectiveness. The recommended funding helps meet requirements of the biological opinion for species listed as endangered or threatened under the Endangered Species Act.

The sound science funding includes recommends restoring the funding for the Chinook Salmon Agreement line item in Salmon Management Activities to \$1,800,000. This funding supports research and stock assessments necessary to acquire and analyze the technical information needed to fully implement the abundance-based

Chinook salmon management program provided for by the Treaty. The States of Alaska, Washington, Oregon, and Idaho, and the twenty-five Treaty Tribes conduct projects selected in a rigorous competitive process.

The International Fisheries Commissions line, under Regional Councils and Fisheries Commissions in the NMFS budget was funded at \$457,000 in FY 2022 and provides the U.S. contribution to bilateral cooperative salmon enhancement on the transboundary river systems, which originate in Canada and flow to the sea through Southeast Alaska. This project was established in 1988 to meet U.S. obligations specified in the Treaty and annual funding should continue at \$475,000 annually.

The core Treaty implementation projects included in the Pacific Salmon Treaty line, and the U.S. Chinook Agreement line under Salmon Management Activities, as well as the International Fisheries Commission line under Regional Councils and Fisheries Commissions consist of a wide range of stock assessment, fishery monitoring, and technical support activities for all five species of Pacific salmon in the fisheries and rivers between Cape Suckling in Alaska to Cape Falcon in Oregon. The States of Alaska, Washington, Oregon, Idaho, and the NMFS conduct a wide range of programs for salmon stock abundance assessment, escapement enumeration, stock distribution, and fishery catch and effort information. The information is used to establish fishing seasons, harvest levels, and accountability to the provisions of Treaty fishing regimes.

Prior to FY 2020, the base annual Treaty implementation funding remained essentially flat since the inception of the Treaty in 1985. In order to continue to fulfill the Federal international commitments created by the Treaty, as costs and complexity increased over time, the States had to augment Federal funding with other Federal and State resources. However, alternative sources of funding have seen reductions or, in some cases, have been eliminated. The increases for the last three Federal fiscal years to implement the revised Annex Chapters were a welcome change.

Negotiations to revise the provisions of the Annex Chapters to the Treaty, except for the Fraser River Chapter, were successfully completed in 2018. The revised provisions will last for 10 years. These chapters contain the specifics for implementing the Treaty for each species in each geographic area. The provisions for a revised Fraser River Chapter were completed in 2019. The revised chapters represent the combined efforts of the participants to ensure healthy salmon populations for the next 10 years. They require commitments to increase efforts to improve upon current management strategies for numerous salmon populations.

Finally, it is important to consider that the value of the commercial harvest of salmon subject to the Treaty and managed at productive levels under the Treaty, supports the infrastructure of many coastal and inland communities. The value of the commercial and recreational fisheries, and the economic diversity they provide for local communities throughout the Pacific Northwest and Alaska, is immense. The Pacific Salmon Commission recently funded an economic study of these fisheries and determined that this resource creates thousands of jobs and is a multi-billion dollar industry. The U.S. Section estimates these fisheries support 26,700 full-time equivalent jobs and generate \$3.4 billion in economic value annually. The value of these fish to the twenty-five Treaty Tribes in Washington, Oregon, Idaho and Alaska goes far beyond their monetary value, to the cultural and religious lives of American Indian and Alaska Native peoples. A significant monetary investment is focused on salmon due to the listings of Pacific Northwest salmon populations under the Endangered Species Act.

Given these resources, the U.S. Section will continue to utilize the Pacific Salmon Commission process to develop recommendations that help with the development and implementation of solutions to minimizing impacts on listed stocks. We will continue to work towards the true intent of the Treaty, and with your support, we will manage this shared resource for mutual enhancements and benefits.

This concludes the statement of the U.S. Section of the Pacific Salmon Commission submitted for consideration by your Committee. We wish to thank the Committee for the support given to us in the past. Please let us know if we can supply additional information or respond to any questions the Committee Members may have.

Thank you.

---

PREPARED STATEMENT OF PARTNERSHIP FOR AMERICA'S CHILDREN

Dear Chairs Shaheen and Cartwright, and Ranking Members Moran and Aderholt:

On behalf of the Partnership for America's Children, I am writing to urge you to provide \$2 billion in FY 2023 funding for the U.S. Census Bureau, \$495 million

more than the Administration's proposed budget, and \$646 million above the enacted FY 2022 level. Our support for this funding level is consistent with the position taken by The Census Project; we have also signed a group letter circulated by The Census Project concerning Census Bureau funding. I am submitting this testimony separately to emphasize the importance of this funding for children.

The Partnership's mission is to support its network of State and community multi-issue child advocacy organizations in effective advocacy. The Partnership has 49 member organizations in 40 States that advocate to improve policies for children at the State, local and Federal level. Collectively they represent over 90% of the Nation's children. Partnership members use Census data in their advocacy, and thirty Partnership members are also KIDS COUNT grantees in their state, serving as that State's data hub on children for policy makers, administrators, and nonprofits.

The Partnership for America's Children served as the National hub on the undercount of young children in the 2020 Decennial Census. In this role the Partnership formed and continues to co-lead a national working group of child-serving organizations that is working to improve the count of young children in all Census Bureau demographic products.

We are aware that funding for over 300 Federal spending programs is distributed based on figures compiled from the decennial census and other Census Bureau surveys, totaling \$1.5 trillion in FY 2017. Many of the programs utilizing these funds are especially important for children. Examples include Medicaid and community health programs, SNAP and child nutrition programs, housing, education and special education, child care funding, WIC, and much more.

Because the 2020 Census was beset by problems, the Bureau has reported that the undercount of young children, particularly young children of color, is dramatically higher than it was in 2010. Since young children were the age group most missed in 2010, and the number of young children missed has been growing steadily since 1980, this is very problematic for many of the purposes of the decennial census and particularly for funding allocation.

Therefore, it is vitally important that the Census Bureau do all it can to improve the accuracy of the count for young children, so that children most in need get their fair share of resources. The Census Bureau needs to invest in a number of approaches to compensate for the 2020 Census' inaccuracies, and to work towards a more accurate 2030 Census, to prevent inequitable distribution of Federal funds.

The Bureau has developed a blended base approach to the population estimates that are used to allocate some Federal funds and to design the American Communities Survey which is also used to allocate Federal funds. This approach is intended to correct the undercounts in the 2020 census, but more research is needed. We support \$10 million in additional funding beyond the President's request for the Population Estimates program, in order to mitigate the undercount in the 2020 Census. The annual Population Estimates can be used to better estimate the count for young children and racial and ethnic subgroups in geographic areas below the state level, and to identify new data sources that would improve the accuracy of the count.

The Partnership also supports a significant increase in funding for the American Community Survey of \$100—\$300 million beyond the Administration's request, to increase the ACS's sample size and to address its declining response rates. We believe the ACS needs to be expanded in order to be an accurate annual measure of income, poverty, and many other subject areas. Of particular importance for children, it needs to be expanded to be able to provide subgroup data including different age groups for children and data about smaller racial and ethnic groups within those age groups. We support the Administration's request for increased funding to improve the Current Population Survey and other Census products, and strongly favor the continuation of the Household Pulse survey for its timely responsiveness in showing levels of hardship and program utilization for children. It has been particularly important in showing the value of various Federal policies in reducing hardship for children.

The Partnership supports the Administration's requests for continued compilation of 2020 decennial data products and for a much higher increase for the 2030 Census than was provided in the FY 2013 year for the 2020 Census. We believe that much work must be done to learn from the mistakes of the 2020 Census and to incorporate the participation of non-federal partner groups at an earlier stage in the process, to allow for a more effective ramp-up of outreach activities to overcome decreasing response rates. The Partnership has been and remains a Census partner and believes the outreach by independent organizations helps build trust among community members who tend to be undercounted.

Thank you for considering the needs of the Census Bureau in relation to its vital role in assuring that Federal resources are fairly and accurately provided, with spe-

cial attention to the needs of children. If you have any questions you can reach me at [dstein@foramericaschildren.org](mailto:dstein@foramericaschildren.org).

Sincerely,  
Deborah Stein, Network Director

---

PREPARED STATEMENT OF POPULATION ASSOCIATION OF AMERICA/ASSOCIATION OF  
POPULATION CENTERS

Thank you, Chair Shaheen and Ranking Member Moran and other distinguished members of the subcommittee, for this opportunity to express support for the Census Bureau, National Science Foundation (NSF), National Institute of Justice (NIJ), and Bureau of Justice Statistics (BJS). These agencies are important to the Population Association of America (PAA) and Association of Population Centers (APC), because they provide direct and indirect support to population scientists and the field of population, or demographic, research overall. In FY 2023, we urge the subcommittee to recommend the following funding levels for these agencies: Census Bureau, \$2 billion; NSF, \$11 billion; NIJ, \$50 million; and, BJS, \$60 million.

The PAA and APC are two affiliated organizations that together represent over 3,000 social and behavioral scientists and the over 40 population research centers that receive Federal funding and conduct research on the implications of population change. Its members, which include demographers, economists, sociologists, and statisticians, conduct scientific and applied research, analyze changing demographic and socio-economic trends, develop policy and planning recommendations, and train undergraduate and graduate students. Their research expertise covers a wide range of issues, including adolescent health and development, aging, health disparities, immigration and migration, marriage and divorce, education, social networks, housing, retirement, and labor. Population scientists compete for funding from the NSF and NIJ and rely on data produced by the Nation's statistical agencies, including the Census Bureau and BJS, to conduct research and research training activities.

THE CENSUS BUREAU

The Census Bureau is the premier source of data regarding U.S. demographic, socio-economic, and housing characteristics. While PAA/APC members have diverse research expertise, they share a common need for access to accurate, timely data about the Nation's changing socio-economic and demographic characteristics that only the U.S. Census Bureau can provide through its conduct of the decennial census, American Community Survey (ACS), and a variety of other surveys and programs.

PAA and APC understand that the Census Bureau's funding level declines dramatically in the initial years of the decennial planning cycle, and the Administration's request reflects, appropriately, this anticipated decrease in funding. Nonetheless, PAA and APC urge the subcommittee to support increased funding for the Census Bureau in FY 2023 above the Administration's request as recommended by The Census Project. In FY 2023, Congress has a unique opportunity to initiate multi-year funding for the Bureau, providing the agency with resources that it needs to not only sustain and strengthen its mission, but also to recover from years of postponed enhancements and pursue numerous necessary operational improvements. The ambitious FY 2023 funding recommendation (\$2 billion) that census stakeholders are supporting would enable the Bureau to pursue initiatives not only in the President's budget, but also additional activities recommended by census stakeholders, including:

—*The American Community Survey.*—While the President's budget requests an additional \$10 million to improve how the ACS measures the sexual orientation and gender identity (SOGI) population, census stakeholders and data users in the public, private, non-profit sectors believe the ACS needs an immediate infusion of substantial funding to pursue other long overdue enhancements to the survey. These enhancements include increasing the survey's sample size, improving its non-response follow up operations, addressing steadily declining response rates, revising content, and making other methodological and operational improvements. An independent report issued in 2022 by The Census Project urges an infusion of \$100 to \$300 million to protect the ACS from further data quality deficiencies and take up a long list of activities to ensure the survey is accurately capturing data about the Nation's increasingly complex population and households. PAA and APC support the report's recommendations and urge the Committee to provide the Bureau with additional funding

to pursue necessary innovations to the survey's content, operations, and data products.

- 2030 Census*.—The President's Budget proposes \$252 million for the 2030 Census in FY 2023 (a \$249 million increase from only \$3 million in FY 2022). This is nearly twice the increase requested a decade ago for the 2020 Census in the comparable cyclical year (FY 2013) (\$64.8 million), as the Bureau intends to continue research and testing to design the next decennial headcount, including work to develop and maintain the completeness of the address list (so that less of the country must be updated in the field), the use of administrative records as a source of data for enumeration, and bringing efficiencies to field operations to reduce non-response follow up. Early decade investments in the decennial census will allow the Bureau to sustain critical capabilities and, as a result reduce the risk of additional funding needs in the peak years later in the decade.
- Modernize and Sustain the Survey of Income and Program Participation (SIPP)*.—Policymakers, particularly as the economy emerges from the COVID-19 pandemic, need high quality, accurate data to assess the impact of government assistance programs on families and communities. The Survey of Income and Program Participation (SIPP) is designed to achieve that goal, yet its funding has fluctuated routinely, especially during years in which the government has been funded via a series of continuing resolutions. Stabilizing and increasing support for SIPP, to no less than \$48 million in FY 2023—an increase of \$1.4 million from FY 2022 enacted (\$46.6 million)—will help Congress make evidence-based policy decisions on the effectiveness of government assistance program. However, additional funding for SIPP would enable the Bureau to pursue necessary innovations designed to enhance the survey's sample, address decreasing response rates, and improve the survey's content. Restoring minor cuts to the SIPP program does not provide the resources necessary to modernize the survey and its operations. A bolder investment in the survey is warranted.
- Innovations to Existing Surveys and Programs*.—The President's fiscal Year 2023 budget proposes several initiatives that would improve existing surveys and programs, including: \$4.5 million to develop and test a self-response web-based instrument for the Current Population Survey (CPS), which is the primary source of information regarding national unemployment rate and provides other data regarding employment, unemployment, and people not in the labor force; an additional \$3.7 million to support the Community Resilience Estimates (CRE) program, which began during the pandemic to provide more granular population data; and, an additional \$66.6 million to support "critical updates to data collection methods for surveys that produce vital statistical data on the U.S. population and economy."

In sum, PAA and APC join other census stakeholders in urging the subcommittee to provide the Census Bureau with \$2 billion in FY 2023 to complete all 2020 Census operations and data delivery objectives; enhance the ACS, initiate planning for the 2030 Census; improve the SIPP; and, enrich the quality and granularity of all census data sets.

#### NATIONAL SCIENCE FOUNDATION (NSF)

For over 75 years the mission of NSF has been to promote the progress of science; to advance the National health, prosperity, and welfare; and to secure the National defense. Understanding the implications of complex population dynamics is vital to the agency's mission, and in particular the Directorate of Social, Behavioral and Economic (SBE) Sciences, which is the primary source of support for the population sciences within the NSF. The SBE Directorate funds critical large-scale longitudinal surveys, such as the Panel Study of Income Dynamics, which inform pressing policy decisions and provide the empirical evidence to help policy makers to formulate effective decisions. It also has participated in cross-cutting, interdisciplinary initiatives of interest to population scientists, such as the Coastlines and People program, which supports research on the implications of climate change on populations, and Mid-scale Infrastructure—two areas of emphasis among the agency's research priorities.

NSF is the funding source for about 27 percent of all federally supported basic research conducted by America's colleges and universities, including basic behavioral and social research. However, the SBE Directorate funds approximately 65 percent of basic, university-based social and behavioral sciences research in the Nation.

PAA and APC, as members of the Coalition for National Science Funding (CNSF), applaud the Administration's proposed NSF FY 2023 budget request, \$10.5 billion, which represents a 19 percent increase in funding over the FY 2022 enacted level.

Moreover, the budget request envisions an allocation for SBE of \$330 million, which would represent a historical high-water mark for this directorate, and an estimated increase of one-third over what we anticipate the FY 2022 allocation will be. We note that the PBR indicates that SBE priority investments include climate change research and a boost to the National Center for Science and Engineering Statistics (NCSES), which plays a key role in the development of the National Secure Data Service. We continue to support the Committee's longstanding practice of not stipulating specific funding levels for individual NSF directorates; however, it is helpful to understand the Administration's views on research priorities, and in this instance we concur.

We note that efforts are currently underway in Congress to reach bi-cameral agreement on legislation to advance translational and interdisciplinary research, emerging technologies, and public-private partnerships. Meanwhile, NSF has launched a new Technology, Innovation and Partnerships (TIP) directorate in anticipation of, and to dovetail with, enactment of this legislation. We urge the Committee to continue to ensure that funding for the TIP will not come at the expense of other, existing directorates.

We urge Congress to accelerate the growth of NSF's budget by providing NSF with at least \$11 billion in FY 2023. The funding level will enable the NSF SBE Directorate to continue its support of social science surveys and a robust portfolio of population research projects. The NSF also continues to focus on interdisciplinary research initiatives, recognizing that social and behavioral science contributes to many critical areas of research. For example, the Mid-scale Infrastructure program is currently funding broad-scale, sensor-based data collection projects that represent collaborations among population scientists and computer scientists. Increased funding in FY 2023 will allow NSF to continue funding the most promising grant applications and reduce the number of high caliber proposals that are rejected solely for lack of sufficient funds.

#### BUREAU OF JUSTICE STATISTICS AND NATIONAL INSTITUTE OF JUSTICE

After years of declining budgets, PAA and APC are participating in the new Office of Justice Programs Research and Statistics Coalition to raise awareness about the Bureau of Justice Statistics (BJS) and National Institute of Justice (NIJ). Both agencies are important sources of data and funding for population scientists conducting research on topics such as prisoner reentry, the social and environmental dynamics of health and crime, and the effects of incarceration across the lifespan. The coalition's recommendations, which PAA and APC support, would provide BJS with \$60 million and NIJ with \$50 million in FY 2023.

Thank you for considering our requests and for supporting Federal programs that benefit the population sciences under the subcommittee's jurisdiction.

[This statement was submitted by Mary Jo Hoeksema, Director, Government and Public Affairs]

---

#### PREPARED STATEMENT OF RESEARCH!AMERICA

Research!America appreciates the opportunity to submit testimony for the record regarding the FY23 Commerce, Justice, Science and Related Agencies appropriations deliberations. We are the Nation's largest nonprofit alliance advocating for science, discovery, and innovation to achieve better health for all. We greatly appreciate the subcommittee's dedicated stewardship over funding for such critical priorities as the National Science Foundation (NSF). As you consider fiscal year 2023 (FY23) allocations, we urge that the subcommittee allocate at least \$11 billion to the National Science Foundation in FY23, an increase of 20% over FY22, to advance the frontiers of research, deliver the benefits of research to society, develop STEM talent, and secure global leadership in science and engineering (S&E).

The NSF's strategic plan aligns with several national priorities, including pandemic response, global economic competitiveness, racial equity, and addressing climate change. Allocating robust funding for NSF is a sound strategy for advancing the United States' strategic interests in an ever-more complex international landscape and meeting the aspirations of the American people.

#### WHAT NSF PROVIDES

The NSF invests in S&E at over 2,000 funded academic institutions in all 50 States, the District of Columbia, and three U.S. territories. Research topics include important national priorities such as advanced manufacturing, infrastructure resilience & sustainability, innovations in AI decision-making, cybersecurity, and data



analytics, among others. The NSF allocates 94% of its budget to research projects, facilities, and STEM education, which supported over 300,000 students, postdoctoral fellows, researchers, trainees, and teachers in 2019. Since its inception in 1950, the NSF has supported more than 248 Nobel Prize winners, including six Nobel Laureates in 2019 alone. Continued NSF investments will fuel our economy for decades to come while producing high-paying jobs for American workers, improving American prosperity and quality of life, and enhancing national security.

*NSF is at the Forefront of Research and Innovation*

The NSF supports a broad spectrum of research and innovation in basic science, engineering, and STEM learning research, and it actively seeks research proposals for new tools, advanced instrumentation, data analysis, computation, and novel facilities. Furthermore, the NSF fosters a culture of smart risk-taking, looking for potentially high rewards that justify taking risks. For instance, the SARS-CoV-2 pandemic highlighted the need for more research on prediction and mitigation of current and future pandemics. It also demonstrated the need for research on remote distributed work and remote learning. NSF-funded researchers rapidly mobilized to conduct research that led to the development of the COVID Information Commons (CIC), an interactive platform that consolidated in one place information on the full range of COVID-related awards made by NSF. This tool and platform enabled researchers from all disciplines to efficiently search for information and discover linkages among highly varied, yet often complementary, efforts. This progress would not have been possible without NSF investment.

*NSF is Essential to Training the Next Generation of American Scientists and Innovators*

The U.S.'s global leadership is directly tied to its strength in the fields of Science, Technology, Engineering, and Mathematics (STEM). The NSF cultivates future American leaders in these strategically important disciplines. Since 1952, the NSF has supported more than 60,000 students through Graduate Research Fellowships and has provided grant support to thousands of postdoctoral fellows and young investigators.

NSF investments have also sustained and enhanced U.S. competitiveness on a global stage. In partnership with other sectors, the NSF has supported S&E research and innovation that has led to the development of breakthrough technologies and solutions to national and societal problems. This includes the new Technology, Innovation, and Partnerships (TIP) Directorate, which will enable the NSF to focus cross-disciplinary expertise and foster cross-sector partnerships to develop solutions at speed and scale. TIP will build on successful innovation programs such as the NSF Convergence Accelerator, as well as the world-leading Lab-to-Market Platform, which spans the NSF Innovation Corps, Partnerships for Innovation, Small Business Innovation Research and Small Business Technology Transfer programs.

Research!America appreciates the complex task facing the subcommittee as it seeks to prioritize funding in a manner that best serves the American people, and we thank you for your continued leadership and consideration of our funding request. Please call on us if we can be of any assistance.

Sincerely,  
Mary Woolley  
President and CEO

---

PREPARED STATEMENT OF THE SEA GRANT ASSOCIATION

The Sea Grant Association (SGA) recommends Congress appropriate \$140 million in FY 2023 for the National Oceanic and Atmospheric Administration's National Sea Grant College Program (Sea Grant) and \$18 million for Sea Grant Aquaculture Research. Sea Grant is funded through appropriations to NOAA's Office of Oceanic and Atmospheric Research in the Operations, Research, and Facilities account.

The SGA recommendation of \$140 million for Sea Grant is roughly equal to the total amount the Sea Grant program is managing in FY 2022 when one factors in funding provided in the Consolidated Appropriations Act, 2022 (Public Law 117-103) (\$76 million for Sea Grant and \$13.5 million for Sea Grant Aquaculture) and the Infrastructure Investment and Jobs Act (Public Law 117-58) (\$50 million for marine debris). The SGA's request includes funding to expand Sea Grant's capacity to address coastal resilience issues.

Sea Grant consists of a network of 34 university-based programs and has supported coastal and Great Lakes communities through research, extension, and education for over 50 years. SGA is a nonprofit association made up of the academic

institutions participating in the program dedicated to furthering Sea Grant's vision, mission, and goals. The SGA advocates for greater understanding, use, and conservation of marine, coastal, and Great Lakes resources.

Sustained, bipartisan congressional support for the program led to the enactment of a 5-year reauthorization, the National Sea Grant College Program Amendments Act of 2020 (Public Law 116-221). The legislation identified several priority activities for FY 2021–2025—including coastal resilience and sustainable aquaculture—and authorized additional funding for competitive grants in these areas. The request made in this testimony would provide the resources necessary for Sea Grant to meet those programmatic objectives.

#### **Sea Grant Benefits**

**Economy:** In 2020, it helped generate an estimated \$520 million in economic benefits, created or supported 11,000 jobs, and created or sustained 1,332 businesses.

**Community:** More than 90% of appropriated funds are competitively awarded, which is critical as our nation continues its economic recovery and addresses challenges posed by the pandemic. In 2020, Sea Grant helped 285 communities improve resilience and over 11,000 people adopt safe and sustainable fishing practices while also restoring or protecting an estimated 4.2 million acres of habitat.

**Students:** In 2020, Sea Grant supported education and training of nearly 2,000 undergraduate and graduate students. This is critical, as pandemic-related challenges across the education system have threatened to disrupt the STEM pipeline and future workforce.

**By leveraging nearly \$3 for every \$1 appropriated by Congress, Sea Grant provides a remarkable return on the public's investment.**

#### *Justification for the FY 2023 SGA Request for Sea Grant*

Throughout its 50-year history, Sea Grant has supported coastal communities, focusing on healthy coastal ecosystems, sustainable fisheries and aquaculture, resilient communities and economies, and environmental literacy and workforce development. However, the demand for services now outweighs existing capacity and resources. Additional funding would allow Sea Grant to better serve more diverse constituencies, including economically disadvantaged groups, land/property owners, businesses, Tribes, state/local planners, engineers, community leaders, fisheries coalitions, developers, and citizen community groups. SGA makes the following recommendations so that it can have the capacity to meet the needs of our coastal communities:

#### *National Sea Grant College Program (Sea Grant): \$140 million*

*Sea Grant Resilient Coasts Initiative.*—The last several years have brought unprecedented challenges to our Nation, from the ongoing human health crisis to increasing natural disasters. For those living in coastal areas—which is more than 40 percent of the United States' population—the 2022 hurricane season is expected to again pose a significant threat, with predictions indicating another above-average

season with 16–22 named storms and nine hurricanes, four to five of which are expected to be major ones. It is imperative that coastal communities have the resources to prepare for, mitigate the effects of, and recover from such events, as well as the many other challenges these communities face, including coastal inundation and erosion, oil and chemical spills, and harmful algal blooms.

Specifically, the funding requested in FY 2023 would enable a focus on capacity building to support recruitment of additional resilience extension, communication, or education staff in each State Sea Grant; to provide funding for a State-based national Sea Grant resilience coordinator; and to enable research, engagement, decision support, and implementation to support local State-based research, training, technical assistance, and coordination that enhance community resilience.

*Racial Equity and Inclusion.*—Sea Grant invests heavily in its people: those in its workforce and those in the communities they serve. There is more that must be done to ensure the Sea Grant workforce is representative of the broader communities they work with across the Nation and that underserved and underrepresented communities are not overlooked when addressing coastal issues.

Sea Grant already has long-standing and trusted relationships with local, Tribal, and indigenous communities that depend on the coastal and marine environment for livelihood and substance and whose cultures are deeply tied to it. Funds appropriated for FY 2023 would advance innovative initiatives to further connect to, learn with, and empower historically marginalized communities by supporting research, training, mentorship, and fellowship opportunities supporting underserved and underrepresented communities.

#### *Sustainable Aquaculture: \$18 million*

Enhancing Sea Grant’s aquaculture program will enable local farmers to produce sustainable seafood for the growing population while also helping lessen our Nation’s seafood trade deficit, which was over \$16.9 billion in 2019. In FY 2020, Sea Grant turned a \$13 million appropriation into over \$80 million in economic impact, creating or sustained over 1,000 aquaculture-related jobs and over 400 related businesses.

Sea Grant’s work around aquaculture includes support and assistance to those across the food chain. The program supports research, education, and workforce development on issues of importance to State and local communities, including farm siting and permitting, production technologies, seafood safety and quality, environmental risks, user conflicts within coastal communities and working waterfronts, animal welfare, and food security. Through research and extension services, Sea Grant assists in increasing sustainable domestic production of currently farmed and promising new species through improvements in feeds and feeding practices, reproduction, larval rearing and genomics, and animal health and through growing adaptations to changing environmental conditions. Sea Grant conducts research and provides technical assistance and outreach to aquaculture producers, resource managers, scientists, and consumers to ensure the safety and quality of sustainably cultured seafood products. Finally, Sea Grant also provides aquaculture literacy programs for the next generation of farmed seafood producers through K–12 education. The funding requested for FY 2023 would expand the Sea Grant aquaculture program, further enabling farmers to produce sustainable seafood that competes with imports and provides a safe and nutritious source of protein.

#### *Examples of Recent Sea Grant Accomplishments*

- Alaska Sea Grant is funding a project to help communities adapt and respond to the changing climate, with a goal of providing communities in Bristol Bay with specific data to inform build solutions and to budget and apply for grant funds<sup>1</sup>.
- Connecticut Sea Grant, with National Sea Grant Law Center and state Bureau of Aquaculture, developed a best practice guide for regulating raw seafood for human consumption and developed the first domestic public health hazards guide for seaweed aquaculture<sup>2</sup>.

<sup>1</sup> A. Gore, “Storm-related data help Bristol Bay communities plan for change,” 2022, available at: <https://alaskaseagrant.org/2022/04/26/storm-related-data-help-bristol-bay-communities-plan-for-change/>.

<sup>2</sup> Sea Grant Connecticut Annual Report, 2021, available at: <https://seagrant.uconn.edu/wp-content/uploads/sites/1985/2022/02/2021.AR—webversion.pdf>.

- Mississippi-Alabama Sea Grant Consortium awarded the first Clean and Resilient Marina certification to Saunders Yachtworks for its best management practices to protect and promote clean water and to reduce water pollution<sup>3</sup>.
- New Hampshire Sea Grant partnered with oyster growers to provide financial relief and to encourage participation in research and conservation, which provided immediate economic relief for growers during the pandemic and explored alternate revenue streams to help oyster growers build economic resilience<sup>4</sup>.

#### CONCLUDING THOUGHTS

The Sea Grant Association is grateful for the long-standing consistent support this subcommittee has provided the program. Our “on the ground” efforts in coastal resilience, sustainable aquaculture, and other key Sea Grant objectives could not happen without the guidance and support this subcommittee and the rest of the Congress has provided over the years. The Sea Grant Association’s request for the National Sea Grant College Program of \$140 million, while more than the amount requested by the Administration for FY 2023, is similar to the request the Administration submitted in FY 2022 and is close to the total amount the Congress has entrusted Sea Grant to manage in FY 2022 when one views the program through the lens of the omnibus appropriations act and the Infrastructure Investment and Jobs Act.

Thank you again for your time and for your consideration of this request. SGA would be happy to answer any questions or provide any additional information.

[This statement was submitted by Dr. Susan White, President]

---

#### PREPARED STATEMENT OF SEATTLE INDIAN HEALTH BOARD

Chair Shaheen, Ranking Member Moran, and members of the Senate Committee on Appropriations—Subcommittee on Commerce, Justice, Science, and Related Agencies, my name is Esther Lucero. I am Diné, of Latino descent, and third generation in my family living outside of our reservation, I strongly identify as an urban Indian. I serve as the President & CEO of the Seattle Indian Health Board (SIHB), one of 41 Urban Indian Organizations (UIO) nationwide. I have had the privilege of serving SIHB for 6 years and have been providing congressional testimonials for the past 4 years. I am honored to have the opportunity to submit my testimony today requesting the Department of Commerce appoint a Senior Advisor for the Office of Native American Affairs.

SIHB is an Indian Health Service (IHS)-designated UIO and a Health Resource and Service Administration (HRSA) 330 Federally Qualified Health Center, which serves nearly 5,000 AI/AN living in the Greater Seattle Area in Washington state. Nationwide, UIOs operate 74 health facilities in 22 States and offer services to over 5.4 million AI/AN people in select urban areas. As a culturally attuned service provider, we offer direct medical, dental, traditional health, behavioral health services, and a variety of social support services on issues of gender-based violence, youth development, and homelessness. We are part of the Indian healthcare system and honor our responsibilities to work with our Tribal partners to serve all Tribal people, wherever they may reside.

We are home to a Tribal public health authority, Urban Indian Health Institute (UIHI), 1 of 12 Tribal Epidemiology Centers (TEC) in the country and the only TEC with a national purview- serving both rural and urban AI/AN’s. For over 20 years, UIHI has managed public health information systems, managed disease prevention and control programs, communicated vital health information and resources, responded to public health emergencies, and coordinate these activities with other public health authorities and UIO’s nationwide. Due to a lack of access to disease surveillance data, UIHI released the only AI/AN COVID-19 Data Dashboard,<sup>1</sup> utilizing the over 45 UIO service areas providing direct service to communities combating COVID-19.

<sup>3</sup>K. Maghan, “Saunders Yachtworks named Alabama’s first clean and resilient marina,” 2021, available at: <https://masgc.org/news/article/saunders-yachtworks-named-alabamas-first-clean-and-resilient-marina>.

<sup>4</sup>New Hampshire Sea Grant, “NH oyster COVID relief and restoration,” 2021, available at: <https://seagrant.unh.edu/blog/2021/12/nh-oyster-covid-relief-restoration>.

<sup>1</sup>Urban Indian Health Institute (April 2022) COVID-19 Among American Indian/Alaska Natives. Retrieved from: <https://www.uihi.org/covid-19-data-dashboard/>.

## ECONOMIC INVESTMENTS IN INDIAN COUNTRY BY THE DEPARTMENT OF COMMERCE

To advance economic wellbeing of AI/AN populations, the Department of Commerce previously maintained the appointment of a Senior Advisor for Native American Affairs. Today, in lieu of a Senior Advisor, the Department of Commerce holds multiple Tribal liaison positions. I believe this is insufficient to meet the economic demands of Indian Country. I insist a Senior Advisor be appointed to: lead the coordination and communication of AI/AN issues with Tribes, Tribal organizations, and UIOs; implement the department's Tribal Consultation Policy Plan, and; guide combined efforts of the Federal Government, Tribal governments, and private sectors to promote economic growth for Tribes, UIOs, and AI/AN people nationwide.

To increase economic advancement in Indian Country, we also request the Department of Commerce support economic advancement initiatives for marginalized communities with funding through the Economic Development Administration (EDA), Minority Business Development Agency (MBDA), and the U.S. Census Bureau. Economic advancement for AI/AN populations can be achieved through investing in healthcare, education, housing, and supporting economic sustainability of AI/AN communities. Economic advancement can also be achieved through budgetary earmarks and grant carve outs support AI/AN populations. SIHB encourages the use of the Federal statute language of Tribes, Tribal organizations, and urban Indian organizations as defined by 25 U.S.C. § 1603.

A persistent barrier for Indian Country's economic development is Federal dollars not reaching urban AI/AN communities in the intended amount. For example, the Department of Commerce's Federal funding can be channeled through State and local governments before being allocated community-based organizations, like SIHB and UIHI. Due to indirect State and local administrative processes, reduced funding is allocated to community-based organizations to implement Federal initiatives. To increase funding for community-based organizations, Federal agencies need to combine resources and provide direct funding to UIOs and BIPOC organizations conducting Federal initiatives. Together, we can properly channel Federal dollars to foster economic empowerment and advancement in Indian Country.

## ECONOMIC INEQUITIES EFFECTING AI/AN LIVELIHOOD

The Commission on Civil Rights documented the history of unmet Federal obligations to Tribal nations in a report titled Broken Promises,<sup>2</sup> which included lack of investment to improve Indian Country's economic wellbeing. In alignment with Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government and the Department of Commerce's Strategic Goal 2: Fostering Inclusive Capitalism and Equitable Economic Growth, we request the Department of Commerce strategize and evaluate opportunities to promote economic growth within AI/AN communities both on and off Tribal territories.

Economic growth of AI/AN people has been stunted due to social determinants of health impacting economic outcomes, resource extraction on Tribal lands, and limited funding for AI/AN communities. AI/AN populations have the highest poverty rate among all minority groups and nationally, 22.7% of urban AI/AN people live in poverty compared to 6.9% for Non-Hispanic White (NHW) populations.<sup>3</sup> Additionally, nearly one in six AI/AN families live in poverty, which is 4.8 times the proportion of NHW families.<sup>4</sup> Of our relatives (patients) served at SIHB, 84% fell 200% below the Federal poverty level (FPL). Poverty can limit a family's access to health services, nutrition, quality housing options, and economic opportunities to build wealth and assets.

The social and economic consequences of poverty are inextricably connected to health outcomes.<sup>5</sup> In the Nation, Medicaid is a major source of financing maternal and infant health with 42% of all births covered by Medicaid.<sup>6</sup> Of our relatives

<sup>2</sup>U.S. Commission On Civil Rights (December 2018). Broken Promises: Continuing Federal Funding Shortfall for Native Americans. Retrieved from: <https://www.usccr.gov/files/pubs/2018/12-20-Broken-Promises.pdf>.

<sup>3</sup>American Community Survey. (2018). American Community Survey: 2013–2017 5-year Data Release.

<sup>4</sup>American Community Survey. (2018). American Community Survey: 2013–2017 5–Year Data Release.

<sup>5</sup>Urban Indian Health Institute. Data Dashboard, Poverty in Seattle. <https://www.uihi.org/urban-indian-health/data-dashboard/>.

<sup>6</sup>Centers for Disease Control and Prevention—National Center for Health Statistics. (2020). Birth in the United States. NCHS Data Brief. No 387. Retrieved from: <https://www.cdc.gov/nchs/data/databriefs/db387-H.pdf>.

served at SIHB, 54.8% are on Medicaid/Children's Health Insurance Program, 10.7% are on Medicare, 5.3% are dual eligible, and 19.4% are uninsured. As the President and CEO of a UIO offering health and human services, I recognize our relatives have limited resources and accessibility to the services they need, which is why I adamantly increase our wraparound services with nutrition, behavioral health, gender-based violence, and homelessness investments.

To address economic discrepancies children born under Medicaid experience in their lifetime, Washington State is leading economic equity policy initiatives through the proposed Future Fund Trust which will aid children born under Apple Health Coverage with \$3,000 upon reaching 18, to spend on higher education, housing payments, and business initiatives. Nationally, Senator Booker has introduced the American Opportunity Accounts Act which provides children with \$1,000 savings account upon birth with annual contributions up to \$2,000 depending on a family's income. These types of initiatives provide economic empowerment to children potentially affected by inter-generational poverty and can support their access to education, housing, and health services to improve their wellbeing.

SIHB has taken steps to support financial capital of AI/AN populations by providing career advancement opportunities for urban AI/AN through healthcare workforce development. Nationally, 20.5% of AI/AN people aged 25 and older in UIO service areas did not complete high school or pass the General Education Development (GED) exam compared to the 5.5% of Non-Hispanic White population.<sup>7</sup> SIHB's workforce development program currently supports 6 family medicine residents, 6 public health interns, and 4 Master of Social Work program students. Of our 6 family residents, 4 identify as AI/AN and recent graduation rates show 80% of our previous residents go on to work in communities of color and 50% go on to work in Native communities. These types of training programs increase AI/AN representation in healthcare provider positions, support financial capital built by AI/AN professionals, and improve economic equity amongst AI/AN populations.

#### U.S. CENSUS AND AMERICAN INDIAN AND ALASKA NATIVE REPRESENTATION

The most recent 2020 U.S. Census reported the largest increase in AI/AN representation, thanks, in part, to trusted community messengers' educating and incentivizing accurate and appropriate data collection practices for Tribal community members. Key census findings reported that 76% of AI/AN populations reside outside of Tribal regions, within urban areas.<sup>8</sup> King County, the 13th most populous county in the Nation,<sup>9</sup> has a population of over 39,000 AI/AN's residing in the region.<sup>10</sup> Coinciding with the Department of Commerce Strategic Objective 4.1, we support increased funding for culturally attuned data collection practices on AI/AN populations to better document existing social determinants of health in our community and ensure Federal resources reach our AI/AN populations to address systemic inequities.

UIHI supported the 2020 Census by partnering with 42 health centers to award subcontracts for organizations to promote the National 'We Count' campaign and strengthen AI/AN participation in the census.<sup>11</sup> Additional efforts included UIHI partnering with other Indian healthcare providers and Native leaders to produce culturally attuned media, educational campaigns, and monetary incentives to encourage participation in the 'We Count' census campaign. These national community-based efforts resulted in an 86.5% increase in the AI/AN population from the 2010 Census.<sup>12</sup>

To build upon 2020 Census efforts, increased investments into improving data collection practices are needed to accurately report on social demographics of AI/AN populations. Previous Census barriers to report accurate AI/AN population statistics

<sup>7</sup>Urban Indian Health Institute. (October 2021) Community Health Profile, National Aggregate of Urban Indian Organization Service Areas. Retrieved from: <https://www.uihi.org/urban-indian-health/urban-indian-health-organization-profiles/>.

<sup>8</sup>U.S. Census Bureau. (2021). County Population by Characteristics: 2010–2020. <https://www.census.gov/programs-surveys/popest/technical-documentation/research/evaluation-estimates/2020-evaluation-estimates/2010s-county-detail.html>.

<sup>9</sup>U.S. Census Bureau (2020). State and County Quick Facts King County, Washington. Retrieved from: <https://www.census.gov/quickfacts/fact/table/kingcountywashington/PST045221>.

<sup>10</sup>Urban Indian Health Institute (March 2012). American Indian/Alaska Native Population by Census Tract- Seattle Indian Health Board Service Area, Seattle WA, 2010 Census. Retrieved from: <https://www.uihi.org/uihp-profiles/seattle/>.

<sup>11</sup>Urban Indian Health Institute. (April 2020) We Count. Retrieved from <https://wecount.uihi.org/#engage>.

<sup>12</sup>U.S. Census Bureau (August 2021). 2020 Census Results on Race and Ethnicity. Retrieved from: <https://www.census.gov/content/dam/Census/newsroom/press-kits/2021/redistricting/20210812-presentation-redistricting-jones.pdf>.

include lack of community-based resources, technological limitations, and general mistrust from the community. Inaccurate reporting leads to government agencies undercounting AI/AN populations and misinterpreting AI/AN social demographics, which drastically impacts the allocation of resources and funding reaching Indian Country.

Taken collectively and intentionally implemented, these requests will help address barriers to economic development impacting AI/AN populations. Together, we can advance economic well-being for Indian Country and support equity across BIPOC communities.

[This statement was submitted by Esther Lucero, MPP, President & CEO]

---

PREPARED STATEMENT OF SOCIETY FOR INDUSTRIAL AND APPLIED MATHEMATICS  
(SIAM)

*Summary*

This written testimony is submitted on behalf of the Society for Industrial and Applied Mathematics (SIAM) to ask you to continue your support of the National Science Foundation (NSF) in fiscal year (FY) 2023 by providing NSF with at least \$11 billion. In particular, we urge you to provide strong support for the Research and Related Activities Account (R&RA) that supports key applied mathematics and computational science programs in the Division of Mathematical Sciences and the Office of Advanced Cyberinfrastructure. SIAM also requests your support for the Education and Human Resources (EHR) directorate that addresses fundamental challenges in mathematics and STEM education.

*Full Statement*

On behalf of SIAM, we submit this written testimony for the record to the subcommittee on Commerce, Justice, Science, and Related Agencies of the Committee on Appropriations of the U.S. Senate.

SIAM has over 14,000 members, including applied and computational mathematicians, computer scientists, numerical analysts, engineers, statisticians, and mathematics educators. They work in industrial and service organizations, universities, colleges, and government agencies and laboratories all over the world. In addition, SIAM has almost 500 institutional members, including colleges, universities, corporations, and research organizations. SIAM members come from many different disciplines but have a common interest in applying mathematics in partnership with computational science to solve real-world problems, which affect national security and industrial competitiveness.

First, we would like to emphasize how much SIAM appreciates your Committee's continued leadership on and recognition of the critical role of the National Science Foundation (NSF) and its support for mathematics, science, and engineering in enabling a strong U.S. economy, workforce, and society.

Today, we submit this testimony to ask you to continue your support of NSF in FY 2023 and beyond. In particular, we join with the research and higher education community and request that you provide NSF with at least \$11 billion in funding for FY 2023. This is \$500 million over the President's budget request for FY 2023 that calls for \$10.49 billion. After years of inadequate funding, NSF needs bold growth to protect U.S. competitiveness as countries such as China are rapidly increasing their science and engineering investments. According to the National Science Board, in FY 2020, NSF rejected close to four billion dollars of proposals rated "very good or higher" due to budget constraints. At least \$11 billion in funding is needed to ensure NSF can meet Congress's vision for the agency, launch new programs in priority areas such as Regional Innovation Engines to transform regional economies in critical technology areas, invest in revolutionary breakthroughs to address resilience and catalyze clean energy innovation, and provide sustainable growth to the core research and education activities undergirding our science and technology ecosystem.

As we are reminded every day, the Nation's health, economic strength, national security, and welfare are being challenged in profound and unprecedented ways. Many of these challenges are fueled by gaps in our understanding of complex systems such as biologic processes, the energy grid, cyberspace, terrorist networks, or the human brain. Mathematics and computational science play a foundational and cross-cutting role in understanding these systems through advanced modeling and simulation, developing techniques essential to designing new breakthrough technologies like artificial intelligence (AI), and providing new tools for managing resources and logistics. Progress in computational sciences and applied mathematics

also underpins advances across an array of fields and challenges in computing, materials, biology, engineering, and other areas.

#### NATIONAL SCIENCE FOUNDATION

NSF serves a unique and critical function supporting all areas of science and engineering to further innovation and seed the knowledge and technologies for a strong future America. NSF provides essential Federal support for applied mathematics and computational science, including more than 60 percent of all Federal support for basic academic research in the mathematical sciences. Of particular importance to SIAM, NSF funding supports the development of new mathematical models and computational algorithms, which are critical to making substantial advances in such fields as neuroscience, energy technologies, genomics, and nanotechnology. In addition, new techniques developed in mathematics and computing research often have direct application in industry. Modern life as we know it—from search engines like Google to the design of modern aircraft, from financial markets to medical imaging—would not be possible without the techniques developed by mathematicians and computational scientists using NSF funding. NSF also supports mathematics education at all levels, ensuring that the next generation of the U.S. workforce is appropriately trained to participate in cutting-edge technological sectors and that students are attracted to careers in mathematics and computing.

SIAM supports NSF's efforts to launch the Directorate for Technology, Innovation, and Partnerships and encourages Congress to give NSF the resources it needs to truly launch new programs such as Regional Innovation Engines and enabling support for NSF priorities in climate, clean energy, emerging industries, and broadening participation. While investment in these priority areas is important, SIAM urges Congress to provide sufficient NSF support for core programs, such as those funded by the Division of Mathematical Sciences (DMS) and the Office of Advanced Cyberinfrastructure (OAC), which have stagnated in recent years and whose foundational investments underpin advances across many science and engineering challenges.

SIAM urges strong investment in the Research and Related Activities account (RRA) to enable robust funding for the Division of Mathematical Sciences (DMS), the Office of Advanced Cyberinfrastructure (OAC), and other core programs and crosscutting initiatives for essential mathematical and computational science research, workforce development programs, and early career researcher support.

#### NSF DIVISION OF MATHEMATICAL SCIENCES

The NSF Division of Mathematical Sciences (DMS) in the Directorate for Mathematical and Physical Sciences (MPS) provides core support for all mathematical sciences. DMS also funds national mathematical science research institutes; infrastructure, including workshops, conferences, and equipment; and postdoctoral, graduate, and undergraduate training. The activities supported by DMS and performed by SIAM members, such as modeling, analysis, algorithms, and simulation, underpin advancements across science and engineering and provide new ways of obtaining insight into the nature of complex phenomena, such as the power grid, software for military applications, and the human body.

Investment in DMS is critical because of the foundational and cross-cutting role that mathematics and computational science play in sustaining the Nation's economic competitiveness and national security, and in making substantial advances on societal challenges such as energy and public health. NSF, with its support of a broad range of scientific areas, plays an important role in bringing U.S. expertise together in interdisciplinary initiatives that bear on these challenges. DMS has taken a leadership role in promoting partnerships with other agencies and foundations to leverage Federal funding for maximum impact. In addition, DMS funding supports a broad array of activities in modeling, analysis, algorithms, and simulation that underpin advancements across science and engineering. Agencies such as the Department of Defense and National Institutes of Health depend on the NSF-supported applied math and computational sciences ecosystem to fulfill their missions as they build on NSF-funded modeling, algorithm, and simulation breakthroughs and leverage the workforce trained using NSF support. Both agencies and foundations partner with NSF thereby leveraging Federal funding for maximum impact, such as with the Joint NSF/National Institutes of Health Initiative Quantitative Approaches to Biomedical Big Data (QuBBDD).

#### NSF OFFICE OF ADVANCED CYBERINFRASTRUCTURE

Work in applied mathematics and computational science is critical to enabling effective use of the rapid advances in information technology and cyberinfrastructure.



Programs in the NSF Office of Advanced Cyberinfrastructure (OAC) in the Directorate for Computer and Information Science and Engineering (CISE) focus on providing research communities access to advanced computing capabilities to convert data to knowledge and increase our understanding through computational simulation and prediction. SIAM strongly endorses NSF's and OAC's role advancing high performance computing to meet critical national security needs, fully leverage computing technology for economic competitiveness and scientific discovery, and position the U.S. for sustained technical leadership. OAC funding will support its role as steward for computational science, building bridges across NSF to accelerate transformational science and engineering.

#### SUPPORTING THE PIPELINE OF MATHEMATICIANS AND SCIENTISTS

A lack of sufficient funding for NSF's Education and Human Resources (EHR) directorate has left critical gaps in addressing fundamental challenges for mathematics and STEM education across educational levels. SIAM supports EHR and its programs like Improving Undergraduate STEM Education (IUSE), which is key to both advancing STEM professional development and developing a STEM literate citizenry. SIAM notes that mathematical education is foundational to STEM learning across disciplines, and NSF should continue to fund development of mathematical and computational skills, including at the undergraduate level when young scientists and engineers gain critical interests and competencies. SIAM supports the NSF CAREER awards, Graduate Research Fellowships, and Mathematical Sciences Postdoctoral Research Fellowships (MSPRF) that are crucial to the training and professional development of the next generation of leadership in mathematical sciences research and education.

#### CONCLUSION

We would like to thank you again for your ongoing support of NSF that enables the research and education communities it supports, including thousands of SIAM members, to undertake activities that contribute to U.S. health, security, and economic strength. NSF needs sustained growth to maintain our competitive edge in science and technology, and therefore we respectfully ask that you continue robust support of these critical programs in FY 2023.

We appreciate the opportunity to provide testimony to the Committee on behalf of SIAM. SIAM looks forward to providing any additional information or assistance you may ask of us during the FY2023 appropriations process.

#### PREPARED STATEMENT OF SOCIETY FOR INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY

On behalf of the Society for Industrial and Organizational Psychology (SIOP), we are pleased to provide this written testimony to the House Appropriations subcommittee on Commerce, Justice, and Science, and Related Agencies for the official record. In this testimony, SIOP urges the subcommittee to consider three requests:

- Provide the requested amount of \$11 billion for the National Science Foundation (NSF), including strong support for the Directorate for Social, Behavioral, and Economic Sciences (SBE), and the new Directorate for Technology, Innovation, and Partnerships (TIP) in the fiscal year (FY) 2023 appropriations process;
- Include report language to encourage NSF to more rigorously implement the science of team science in the agency's funding strategies for large-scale and multi-disciplinary research projects; and
- Support for workforce evaluation and technical assistance at the Department of Justice's Community Oriented Policing Services Office.

#### APPROPRIATIONS SUPPORT FOR NSF

SIOP is a community of nearly 10,000 members worldwide with a common interest in promoting the research, practice, and teaching of industrial and organizational (I-O) psychology to enhance human well-being and performance in organizational and work settings. SIOP provides a platform for scientists, academics, consultants, practitioners, and students to collaborate, implement, and evaluate cutting-edge approaches to workplace challenges across sectors.

We have evidence that Federal investment in social and behavioral science research directly and positively impacts the U.S. economy, national security, and the health and well-being of Americans. Through SBE, NSF supports basic research to develop a scientific evidence base for improving the performance, effectiveness, management, and development of organizations and the workforce. The methods, meas-

urements, and theories developed through this Federal investment enhance business practices, policymaking, and interprofessional collaboration. The evidence base derived from basic research in the science of organizations is applied throughout the public and private sectors.

SBE is critically important to NSF and has been highly responsive to the transformative events of the past few years. SBE rapidly responded to the challenges and opportunities posed by the COVID-19 pandemic, supporting the second most pandemic-related research grants among NSF Directorates. This included significant support for the field of I-O psychology as the nature of work has fundamentally shifted. SBE investments, particularly those from the Science of Organizations program, have allowed I-O psychologists to develop data-driven methods to address workplace disruption, issues of work-life balance, workforce participation by women and underserved populations, and the challenges and opportunities related to the shift to remote work. This research will be crucial as we continue to emerge from the pandemic and deal with its lasting effects on our workplaces and organizations.

NSF SBE has also provided the foundation for I-O psychologists to understand how our rapidly emerging technologies affect the workforce. As the rate of technological change continues to accelerate, I-O psychologists are already seeking to understand how technologies like Artificial Intelligence and automation affect American workers and develop responsive employee training programs necessary to reskill our workforce.

Continued Federal support for I-O psychology keeps its knowledge and expertise in the public domain and enhances shared workplace efficiency and understanding of worker well-being at all levels. Other applications of I-O psychology include transitioning veterans and service members to civilian jobs, managing age diversity in the workplace, and developing preventative sexual harassment workforce interventions, among many others.

NSF has also launched a new Directorate for Technology, Innovation, and Partnerships (TIP). SIOP applauds NSF and Congress for investing in TIP and encourages the new directorate to continue focusing on use-inspired research that will position the Foundation to drive innovation in industries and technologies of the future. In order to fully reach its potential, the TIP Directorate must incorporate social and behavioral science topics into its research agenda, particularly workforce needs and impacts to the workplace as a result of these new technologies or research advancements. Furthermore, as the TIP Directorate recruits and hires new staff, effort must be taken to ensure that the program officers are drawn from a broad variety of professional disciplines, including I-O psychology and other behavioral sciences. SIOP encourages NSF and TIP to utilize and support I-O concepts and research in its plans for the future success of the directorate, as well as employ I-O experts as part of its staff.

Given NSF's critical role in supporting fundamental research and education across science and engineering disciplines, SIOP supports an overall FY 2023 NSF budget of \$11 billion. SIOP requests robust support for the NSF SBE Directorate, which funds important research studies, enabling an evidence base, methodology, and measurements for improving organizational function, performance, and design across sectors and disciplines. SIOP also requests the new TIP Directorate be fully funded and empowered to support innovative research that will drive America's global competitiveness, including in the social and behavioral sciences.

#### SCIENCE OF TEAM SCIENCE

SIOP requests that Congress direct NSF to further adopt of the Science of Team Science (SciTS) in NSF programs and policies. SciTS is the empirical examination of the processes by which large and small scientific teams organize, conduct, and communicate research. I-O psychologists with expertise in SciTS have engaged with NSF program officers and leadership, as well as some congressional staff to ensure their findings are fully ingrained in the agency's new models and approaches for funding cross-disciplinary science and/or large-scale research projects. With the launch of the new Directorate for Technology, Innovation, and Partnerships (TIP), SIOP believes it is increasingly important that the agency take additional steps to ensure evidence-based team science is considered in multi-partner initiatives to improve communication between researchers, productivity, efficiency and cost-effectiveness. New programs focused on multi-disciplinary collaboration between academia, industry, and other community partners, such as the Regional Innovation Engines, require targeted SciTS approaches to ensure their success.

Team science is a well-known research subject at NSF and the language should be understood by the agency. NSF has funded several team science studies through SBE and program officers across directorates have expressed interest in leveraging

team science to improve multi-disciplinary awards, including participating in one-on-one conversations with SIOP experts and inviting them to present on NSF panels. SIOP appreciates NSF's interest in learning more about leveraging SciTS to improve programs and collaborations at the agency. While NSF has taken some steps forward to address the importance of team science in some multi-disciplinary awards, we feel that appropriations report language that specifically mentions the importance of team science would build on this existing momentum and further catalyze meaningful action.

For further reference, SIOP members served on the National Academies' Committee on the Science of Team Science, which produced the 2015 report on this topic: <https://www.nap.edu/catalog/19007/enhancing-the-effectiveness-of-team-science>. Also, slides and recordings from NSF's 2018 Accelerating Engineering Research Center Preparedness Workshop can be found at: <https://ercbiennial.asee.org/2018-pgw/program/>. SIOP members Drs. Steve Kozlowski and Kara Hall present on team science.

#### REQUESTED REPORT LANGUAGE

*Team Science.*—NSF is encouraged to continue to seek ways to implement the science of team science to improve scientific collaboration as the agency develops new models and approaches for funding large-scale and cross-disciplinary research projects, including via the Technology, Innovation, and Partnership (TIP) Directorate. In particular, NSF is encouraged to ensure that it is implementing the recommendations from the National Academies of Sciences, Engineering, and Medicine report, *Enhancing the Effectiveness of Team Science*.<sup>1</sup>

#### DEPARTMENT OF JUSTICE (DOJ) COMMUNITY ORIENTED POLICING SERVICES (COPS) OFFICE

DOJ's COPS Office is responsible for advancing the practice of community policing by the Nation's State, local, territorial, and Tribal law enforcement agencies through information and grant resources. The COPS Hiring Program (CHP), the agency's signature initiative, provided \$165 million for law enforcement agencies in FY 2022. Hundreds of law enforcement agencies have benefited from this program since its inception, but little is known about these recipients and the unique issues they face in key areas like recruitment, retention, training and more. Collectively, CHP recipients make up an ideal study group to explore important questions over what factors and activities drive people toward careers in policing, as well as what may drive people away. When there is more evidence about what works and what some persistent issues are to be addressed, the COPS Office can better tailor technical assistance programming to meet the needs of law enforcement agencies.

To this end, Congress should provide funding for the COPS Office to support a volunteer evaluation study of CHP recipients to better understand common recruitment, hiring, and retention practices and leverage the findings to target future Federal assistance. Congress should also specify that the COPS Office work with an outside organization with expertise in workforce and workplace sciences. SIOP has a relationship with the COPS Office to provide expert input on priorities regarding hiring and selection, reducing officer burnout, providing meaningful training and professional development, and other topics of I-O expertise. SIOP could be key partners in assisting the COPS Office as they develop and carry out the study to ensure it is designed properly for impactful results.

#### REQUESTED REPORT LANGUAGE

*Workforce Study.*—The Committee recognizes that persistent recruitment, hiring, and retention issues are plaguing law enforcement agencies nationwide. The COPS Office provides support to address these issues through the COPS Hiring Program, but little is known about specific challenges facing grantees. With the appropriations provided, COPS should carry out a voluntary assessment of COPS Hiring Program recipients to understand workforce challenges facing police departments, identify best practices, and collect other findings to better target future technical assistance programming. In carrying out this study, the COPS Office shall enter into a partnership with qualified organizations with extensive expertise in workforce and workplace sciences, such as industrial and organizational psychology.

<sup>1</sup> <https://www.nap.edu/catalog/19007/enhancing-the-effectiveness-of-team-science>.

Thank you for the opportunity to offer SIOP's support for NSF and DOJ. Please do not hesitate to contact SIOP should you have any questions. Additional information is also available at [www.siop.org](http://www.siop.org).

[This statement was submitted by Dr. Mo Wang, President and Tracy L. Vanneman, Executive Director]

---

#### PREPARED STATEMENT OF SOCIETY FOR NEUROSCIENCE

Chair Shaheen, Ranking Member Moran, and members of the subcommittee, on behalf of the Society for Neuroscience (SfN), we are honored to present this testimony in support of robust appropriations for biomedical research at the National Science Foundation (NSF). SfN urges you to provide at least \$11 billion, an increase of approximately \$2.162 billion, in funding for NSF in FY23. As both a researcher and a Professor in the Department of Biology at Brandeis University, I understand the critical importance of Federal funding for neuroscience research in the United States. My own research identified the ability of brain circuits to “tune themselves” to maintain the appropriate level of excitability, which is critical for healthy brain function.

My research group, supported by NSF funding, made fundamental discoveries in how neurons self-adjust their excitability, making it easier or harder to send electrical messages to other neurons. Over the past two decades, we have unearthed a family of mechanisms that allow for this unique flexibility called “homeostatic plasticity”, so neurons can change the rate they send messages and protect communication in the face of outside disturbances. Our work has many wide-reaching implications: We are studying how learning and memory suffer when these mechanisms malfunction; We are exploring how being awake or asleep affects these mechanisms; and we are investigating how States of being too excitable or not excitable enough contribute to disorders like epilepsy and autism spectrum disorder. Basic research, like my own, is paramount to understanding the brain at a level deep enough to develop treatments and interventions for diseases and disorders.

SfN believes strongly in the research continuum: basic science leads to clinical innovations, which lead to translational uses positively impacting the public's health. Basic science is the foundation upon which all health advances are built. To cure diseases, we need to understand them through fundamental discovery-based research. However, basic research depends on reliable, sustained funding from the Federal Government. SfN is grateful to Congress for its support of the important mission of the NSF, which includes a focus on promoting the progress of science and advancing the National health, prosperity, and welfare, through increased appropriations in recent years.

#### THE IMPORTANCE OF THE RESEARCH CONTINUUM

NSF funding for basic research is critical for facilitating groundbreaking discoveries and for training researchers at the bench. For the United States to remain a leader in biomedical research, Congress must continue to support basic research fueling discoveries as well as the economy. The deeper our grasp of basic science, the more successful those focused on clinical and translational research will be. We use a wide range of experimental and animal models not used elsewhere in the research pipeline. These opportunities create discoveries—sometimes unexpected discoveries—expanding knowledge of biological processes, often at the molecular level. This level of discovery reveals new targets for research to treat all kinds of brain disorders that affect millions of people in the United States and beyond.

NSF basic research funding is also a key economic driver of science at universities and research organizations across the country. Federal investments in scientific research fuel the Nation's pharmaceutical, biotechnology and medical device industries. The private sector utilizes basic scientific discoveries funded through NSF to improve health and foster a sustainable trajectory for American's Research and Development (R&D) enterprise. Basic science generates the knowledge needed to uncover the mysteries behind human diseases, which leads to private sector development of new treatments and therapeutics. This important first step is not ordinarily funded by industry given the long-term path of basic science and the pressures for shorter-term return on investments by industry. Congressional investment in basic science is irreplaceable in the pipeline for development of drugs, devices, and other treatments for brain-related diseases and disorders.

Another example of NSF's success in funding neuroscience is the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative. A part of the research landscape in neuroscience, the BRAIN Initiative has been critical in pro-

moting future discoveries across neuroscience and related scientific disciplines. By including funding in the 21st Century Cures Act, Congress helped maintain the momentum of this endeavor. Note, however, using those funds to supplant regular appropriations would be counterproductive. There is no substitute for robust, sustained, and predictable funding for NSF. SfN appreciates Congress' ongoing investment in the BRAIN Initiative and urges its full funding in FY22. Some recent exciting advancements in NSF funded neuroscience research include the following:

#### N95 MASK SMART MONITORING DEVICES

As SARS-CoV-2 is a respiratory virus, face masks have emerged as a protective mechanism. N95 masks are recommended by medical professionals. At Northwestern University, researchers have taken the N95 mask and engineered a smart monitoring device, calling it a "Fitbit for the face". The device is a small sensor that attaches to the inside of an N95 mask and can detect heart rate, respiration rate, and the mask wear time. These are all collected on a smart phone app, and the app can also alert users when there are mask leaks. The device's portability and ability to harvest energy from the heat and motion of mask wearers increases the sensors battery life of up to 11 days or more. Researchers hope this device will help medical professionals better detect Covid-19.

#### OPIOID EPIDEMIC MAY BE COUNTERED BY RESPIRATION-DETECTING TECHNOLOGY

There is an opioid epidemic in the United States. In 2019, the National Institute on Drug Abuse reported nearly 50,000 people in the United States died from opioid overdoses. The opioid crisis has only worsened over the course of the Covid-19 pandemic. However, scientists at the University of Washington have created a wearable device that can reverse an opioid overdose. When people overdose on opioids, this causes respiratory failure. The new device works by detecting respiration patterns and motions in its user during an opioid overdose. If the user stops breathing or moving, the device administers naloxone, a competitive antagonist that works to restore respiration. The researchers at the University of Washington have tested this device in both a supervised injection facility and a hospital. They found their closed-loop system accurately tracked breathing rate in self-injected and simulated opioid-induced apneas. This system has the potential to detect opioid overdoses before becoming fatal and could reduce the burden of the opioid epidemic.

#### FUNDING IN REGULAR ORDER

SfN joins the biomedical research community in supporting an increase in NSF funding to at least \$11 billion, a \$2.162 billion increase over FY22. This proposed increase is necessary to provide certainty to the field of science, allowing for the exploitation of new scientific opportunity, additional training of the next generation of scientists, increased economic growth and further improvements in the public's health. Equally as important as providing a reliable increase in funding for biomedical research is ensuring funding is approved before the end of the fiscal year. Continuing Resolutions have significant consequences on research, including restricting NSF's ability to fund grants. For some of our members, this means waiting for a final decision to be made on funding before knowing if their perfectly scored grant would in fact be realized or operating a lab with 90 percent of the awarded funding until appropriations are final. This negatively impacts all the positive benefits research provides the field. SfN strongly supports the appropriation of NSF funding in a timely manner which avoids delays in approving new research grants or causes reductions in funding for already approved research funding.

SfN thanks the subcommittee for your strong and continued support of biomedical research and looks forward to working with you to ensure the United States remains the global leader in neuroscience research and discovery. Collaboration among Congress, the NSF, and the scientific research community has created great benefits for not only the United States but also people around the globe suffering from brain-related diseases and disorders. On behalf of the Society for Neuroscience, we urge you to continue this critical cooperation and support of biomedical research.

[This statement was submitted by Gina Turrigiano, PhD, President]

#### PREPARED STATEMENT OF UNITED FISHERMEN OF ALASKA (UFA)

Dear Chairman Shaheen and Ranking Member Moran:

United Fishermen of Alaska (UFA) is the Alaska commercial fishing industry trade association, representing 37 commercial fishing organizations based in both

Alaska and Washington that participate in fisheries throughout the Alaska, and Federal fisheries off the Alaska and Washington/Oregon coasts.

As you prepare the FY 23 Commerce, Justice, Science, and Related Agencies (CJS) appropriations bill, UFA requests that you work with your colleagues to ensure increased funding in the CJS bill for the Saltonstall-Kennedy (S-K) Grant Program.

Enacted in 1954, the S-K Act aims to “. . . aid the American commercial fishing industry by promoting the free flow of domestically produced products in commerce and developing and increasing markets for those products,” through a federal, competitive grant program. As you know, the S-K Grant Program is funded by a tariff on imported seafood, the revenues from which are transferred from USDA into NOAA’s “Promote and Develop Seafood Products” account. The tariffs capitalizing the Promote and Develop account have increased almost every year from \$82 million in 2007 to over \$240 million in 2021. Regardless of this dramatic and consistent increase, the S-K Grant Program has stayed in the \$8- \$12 million range of Congressional funding. The fiscal Year 22 funding for the S-K Grant Program is \$11.8 million, approximately 4.8% of the “transfer” from USDA. However, the S-K Act clearly States that:

(e) Allocation of fund moneys

(1) Notwithstanding any other provision of law, all moneys in the fund shall be used exclusively for the purpose of promoting United States fisheries in accordance with the provisions of this section, and no such moneys shall be transferred from the fund for any other purpose . . . (A) the Secretary shall use no less than 60 per centum of such moneys to make direct industry assistance grants to develop the United States fisheries and to expand domestic and foreign markets for United States fishery products pursuant to subsection (c) of this section;

Increased S-K funding is needed for the U.S. seafood industry now more than ever. World events have closed markets and significantly raised tariffs on many U.S. seafood exports. Moreover, because of the war in Ukraine and other U.S. policies, several foreign nations have been restricted from importing seafood to the U.S. (The U.S. imports approximately 90% of seafood consumed domestically). Increased S-K funding should focus on increasing domestic consumption of U.S. caught seafood as well as the secondary processing of seafood within the U.S. American fisheries are also challenged by disproportionate foreign government spending to support their fishing industries. For example, Norway spends more than 10 times the amount of money allocated to market U.S. produced salmon on marketing Norwegian salmon in U.S. markets. Increased S-K allocations could, in part, level the playing field in the promotion of U.S. produced seafood to U.S. markets.

Recently, Congress re-established the American Fisheries Advisory Committee (AFAC Committee) to work with NOAA to prioritize and direct S-K funding. UFA, as a representative of the Alaska Seafood Industry, is looking forward to AFAC’s new leadership role in the application of S-K funding. It has been 50 years since S-K funding decisions had industry input as was intended by the 1954 enabling legislation. According to the legislation, the purpose of S-K funding was “to assist persons in carrying out research and development projects addressed to any aspect of United States fisheries, including, but not limited to, harvesting, processing, marketing, and associated infrastructures.” The AFAC Committee, as designed, will have both geographical and experiential diversity including fishermen, scientists and regulators drawing from six regions across the country. As such, AFAC will be an effective advisory body, ensuring that increased S-K funding is strategically invested to return maximum benefit to the American seafood industry.

UFA, as the Alaska seafood industry’s representative and advocate, would like to see the S-K Grant funding begin to approach the percentage of U.S. tariffs on imported seafood that were envisioned when the original statute was passed. For FY 23, UFA encourages you to consider funding the S-K Grant Program at no less than 15% of the transfer to NOAA’s “Promote and Develop Seafood Products” account derived from tariffs on imported seafood as a specific line item in the budget. This equates to approximately \$35 million and is a step in the right direction towards the 60% language contained in the S-K Act. In future years, we recommend continued incremental increases up to 60%.

We thank you for considering UFA’s request for increased S-K Grant funding that will address the new and increased needs of America’s fishing industry and ensure the new AFAC Committee’s ability to maximize national seafood marketing as they begin to address the rebuilding and expansion of America’s seafood markets.

Sincerely,

Matt Alward, President  
Tracy Welch, Executive Director

## PREPARED STATEMENT OF UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH

On behalf of the University Corporation for Atmospheric Research (UCAR), a non-profit consortium of more than 122 North American colleges and universities focused on research and training in the Earth system sciences, I appreciate the opportunity to submit for the record our fiscal year (FY) 2023 funding priorities for the National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation (NSF), and the National Institute of Standards and Technology (NIST). These agencies serve an incredibly—and increasingly—important role in our understanding of climate change and how we can mitigate its adverse effects. The below funding priorities reflect my view of what resources are needed so they can meet their missions.

By way of background, UCAR is the manager of the National Center for Atmospheric Research (NCAR) on behalf of NSF. Founded in 1960, we are trusted administrators of the financial, human resources, facilities, and information technology functions that are essential to NCAR's success.

We bring together the Earth system science community to exchange ideas, discuss challenges, and share what we've learned. By connecting researchers and educators with cutting-edge resources—and with the private sector—we take research out of the lab into the real world for the benefit of society. UCAR members constitute a self-governing body representing nearly all academic programs in Earth system science in North America. We provide a clear voice for our membership, in collaboration with the broader community, to convey the value of our research, education, and partnerships to policymakers and decision makers.

It is undeniable that we have entered a new era of extreme weather driven by climate change. While the U.S. is no stranger to extreme events, impacts from recent events have been unprecedented. Many parts of our country have been drowned in devastating floods, baked under deadly heat, suffered multi-year droughts, and burned from fast-moving and intensely hot wildfires. This includes many of our own staff who fled their homes in December, some of whom lost their homes, and many more who are still feeling the impacts to this day. In addition, new forms of extreme weather have appeared in recent years, including severe tornados that level entire towns and Arctic cyclones that erode coastlines.

These phenomena are just the beginning. Whereas the incremental warming of our Earth system may seem small, on-the-ground impacts are massive. In addition to local devastation, the impact of extreme weather reverberates through our natural, physical, and social systems. The Federal Government must not waver in its commitment to produce breakthrough research that benefits science, human safety, economic prosperity, and national security.

I appreciate and support the widespread increases to atmospheric research in the President's budget request. I respectfully request the subcommittee consider UCAR's recommendations regarding targeted investments, in the following areas of priority. I believe these modifications will better prepare the country to combat the growing climate-related challenges that will affect every American.

## NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

I respectfully request at least \$975 million for Scientific and Technical Research and Services (equal to the request).

The formation and impacts of wildfire must be better understood to protect communities in the western United States that are dealing with the year-round threat of destruction and displacement from fire events. In particular, the wildland-urban interface must be studied to better understand air quality impacts and fuels composition. This should be part of a more comprehensive, all-of-government approach to addressing wildfires.

I appreciate the subcommittee significantly increasing funding for Scientific and Technical Research and Services (STRS) in its FY 23 request. I respectfully request that within the total for STRS, an additional \$25 million is designated for NCAR to begin the cross-disciplinary and interagency work necessary to protect life and property from the increasing threat of wildland fire.

The Fire Research Division develops, verifies, and utilizes measurements and predictive methods to quantify the behavior of fire and means to reduce the impact of fire on people, property, and the environment. This work involves integration of laboratory measurements, verified methods of prediction, and large-scale fire experiments to demonstrate the use and value of the research products.

Residents of Colorado are acutely aware of the dangers posed by wildland fire, in particular when wildfire encroaches on the urban environment. As a Colorado-based entity, NCAR is uniquely positioned to lead community efforts to better understand wildfire and develop an integrated approach to addressing impacts.

In the wake of the NCAR, Marshall, and Middle Fork fires, this issue is top of mind for not only Colorado and the organization, but scientists and policy makers across the American West. NCAR can use additional funding to build out a wildfire research test bed. Additional funding at NIST can allow for increased research into understanding wildfire interactions with the wildland urban interface (WUI). NCAR can also use increased funding to couple the CESM2 (Community Earth System Model Version 2) with local models like WRF-Fire (Weather Research and Forecasting—Fire) and WRF-Chem (Weather Research and Forecasting coupled with Chemistry) to understand how large-scale changes to the Earth system will impact local fire dynamics, air quality, and local decision making on the ground. NCAR is well positioned with its existing expertise to take advantage of additional funding to accelerate wildfire research, and to collaborate with others in the Earth system science community to address this critical issue.

#### NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

I respectfully request at least \$7.2 billion for NOAA (6 percent more than the request).

NOAA plays a critical role in our efforts to both understand and mitigate the threat of climate change. To ensure that NOAA and its subagencies have the dedicated resources it needs to continue and expand upon its important work, I respectfully request at least:

- \$9 million for sustained funding of climate intervention research at NCAR, within the Office of Atmospheric Research (equal to the request). We have yet to achieve a full understanding of the impacts of climate intervention activities and their associated risks and benefits. Further research is needed to study climate dynamics and air chemistry impacts of geoengineering the Earth system. NCAR is uniquely positioned to study both the climate dynamics and air chemistry impacts of geoengineering on the Earth system.
- \$4.48 billion for Oceanic and Atmospheric Research (equal to the request), including at least \$16.27 million in dedicated funding to support NCAR's continued development of Airborne Phased Array Radar (APAR). These resources are needed in anticipation of NSF completing its award process in early 2023. APAR is a critical tool for studying weather and related hazards, especially over rugged terrain or the open ocean where operations are inherently challenging. Major advances in radar technology have paved the way for development of APAR to provide more detailed observations from within high-impact weather systems. An APAR system is currently being designed and developed by NCAR for installation on the NSF/NCAR C-130 aircraft. This will provide more agile scanning strategies and enhanced capabilities for researchers to advance science frontiers.
- \$15 million for NOAA-wide activities that support Software Development and Code Design of next generation predictive models. NCAR's Computational and Information Systems Lab (CISL) manages and operates two state-of-the-art supercomputers for the Earth system science community. However, supercomputing-built infrastructure is only as valuable as the code developed for advanced model runs. The research community plays a critical role in supporting the operational mission of NOAA, but more must be done to ensure continued community engagement with investments in training programs and sustainable pathways for the next generation of Earth system software developers. I respectfully request \$15 million in FY 2023 for additional investments in code design and software engineering, coupled with physical sciences, to advance predictability of high impact weather.

#### NATIONAL SCIENCE FOUNDATION

The National Science Foundation and its numerous facilities perform essential functions in our understanding of the physical world. In addition, Atmospheric and Geospace Sciences (AGS) are vital for tracking and analyzing extraterrestrial impacts to Earth's weather and climate. To help NSF meet its mission, I respectfully request at least \$301.4 million for AGS (equal to the request) and \$124.92 million for NCAR Operations and Maintenance of NCAR's Facilities (7.5% more than the request).

- I thank the subcommittee for its continued support of operations and maintenance of NCAR facilities. However, rising inflation means that more money will be needed to adequately maintain NSF facilities, including NCAR. This increase is necessary so that NCAR can continue to attract top scientists, while also modernizing NCAR's Mesa Laboratory in Boulder, Colorado. I respectfully request at least \$124.9 million (7.5% above the request) for NCAR Facilities.



—Funding for AGS should include dedicated support for further development of the Coronal Solar Magnetism Observatory (COSMO), a proposed suite of complementary ground-based instruments designed to study magnetic fields and plasma conditions in the Sun's atmosphere.

The impacts of space weather are felt across multiple sectors, including the growing aerospace industry, necessitating increased investments in research and observations of the Sun. Tiny, electrically-charged particles hurled toward Earth from a solar storm can disrupt radio communications, GPS signals, and other technologies that people rely on daily. Understanding solar storms and space weather will help protect electric grids that power communities in an increasingly telecommunication-reliant world.

I thank the subcommittee for providing a preliminary investment of \$5.6 million in FY 2021 to survey prospective locations for COSMO. Additional funding beyond the initial award is needed to complete site survey, choose a candidate site, and to finish construction design and get an accurate cost estimate of all remaining elements of COSMO. I respectfully request an additional \$8 million in FY 2023, specified in report language, to support this next stage of progress for this critical endeavor.

Again, I thank the subcommittee for its attention to these matters and commitment to ensuring NOAA, NSF, and NIST can continue and expand their increasingly important work. I am more than happy to be a resource for the subcommittee as it progresses through the FY 2023 appropriations process.

[This statement was submitted by Dr. Antonio J. Busalacchi, President]

#### PREPARED STATEMENT OF WESTERN GOVERNORS' ASSOCIATION

Chair Shaheen, Ranking Member Moran, and Members of the subcommittee, the Western Governors' Association (WGA) appreciates the opportunity to provide testimony on items within the jurisdiction of the subcommittee on Commerce, Justice, Science, and Related Agencies, all of which relate to the U.S. Department of Commerce. WGA is an independent organization representing the Governors of the 22 westernmost States and territories. The Association is an instrument of the Governors for bipartisan policy development, information sharing and collective action on issues of critical importance to the western United States.

Western Governors support strong and dedicated funding for the National Integrated Drought Information System (NIDIS) program under the National Oceanic and Atmospheric Administration (NOAA). WGA is well-acquainted with the significant environmental, economic, and social effects of drought on the West and its communities. Drought contributes to the incidence of forest and rangeland wildfire, impairs ecosystems and wildlife habitat, degrades agricultural productivity, and poses threats to municipal and industrial water supplies. A growing population's dependence on limited water resources creates challenges for water management across the West, from the Great Plains to the Intermountain West to the coastal, estuarine, and marine environments of the Pacific States and islands. Planning for an adequate, reliable, and clean water supply requires accurate and complete water and weather information.

NIDIS promotes a coordinated and integrated approach to managing future drought. This approach involves improved forecasting and monitoring to provide the kind of authoritative, objective, and timely drought information that farmers, water managers, decision-makers, and State and local governments require for effective drought preparation and response. Through NIDIS, NOAA is building a network of early warning systems for drought while working with local resource managers to identify and address unique regional drought information needs.

Western Governors value the approach used to build and improve NIDIS. Rather than creating a new NIDIS bureaucracy, the system draws from existing capacity in States, universities, and multiple Federal agencies, as called for in the original authorizing legislation. Given our shared fiscal challenges, WGA regards this as a model for Federal-State collaboration in shared information services.

Water users throughout the West—including farmers, ranchers, Tribes, land managers, business owners, recreationalists, wildlife managers, and decision-makers at all levels of government—must be able to assess the risks of drought before its onset to make informed decisions and implement effective mitigation measures. For these reasons, Western Governors request continued support and strong funding for the National Weather Service River Forecast Centers and Weather Forecast Offices and the NIDIS program, which perform a valuable role in western water management and drought response.

Many western communities, especially Tribal communities, lack access to broadband internet due to the high cost of infrastructure and the economic challenges of serving low customer densities in rural areas. When communities do have access to broadband, download and upload speeds are often insufficient to meet bandwidth demands. These realities have left many rural businesses at a competitive disadvantage and citizens without access to telework, telemedicine, and distance learning opportunities. Consequently, Western Governors support efforts to adopt a Federal definition of broadband that is higher and more scalable than 25/3 Mbps. In addition, the Governors support efforts to leverage state expertise through State block grants and opportunities to improve connectivity on rural and Tribal lands. To ensure that Tribal areas receive adequate investment, Federal broadband programs should allocate a designated portion of their available funding to Tribal projects. Western Governors applaud the historic level of broadband funding in the Infrastructure Investment and Jobs Act (IIJA, Public Law 117–58), particularly the funds allocated to the existing Tribal Broadband Connectivity Program and the new Broadband Equity, Access, and Deployment Program administered by the National Telecommunications and Information Administration (NTIA). The Governors look forward to engaging with NTIA on this funding and stand ready to implement projects for the benefit of rural and Tribal communities.

Deployment of broadband infrastructure to these underserved and unserved communities requires an accurate picture of nationwide broadband availability. Western Governors appreciate the Federal Communications Commission’s plans in 2022 to implement the Broadband Deployment Accuracy and Technological Availability Act, known as the Broadband DATA Act, and address the accuracy of broadband data coverage and mapping. The Governors support continued investment in these efforts, which are especially critical with the NTIA deploying the second disbursement of IIJA funds to States using a formula based on new FCC maps. WGA also encourages the coordination of data collection strategies among the Federal Communications Commission, U.S. Department of Agriculture, and other agencies involved in broadband mapping and deployment.

On the subject of data collection, Western Governors are supportive of the implementation of the Foundations for Evidence-Based Policymaking Act of 2018 (the Evidence Act, Public Law 115–435). The act established a new set of comprehensive requirements for Federal agencies regarding their collection, use, and management of data in evidence-building functions. One such requirement in the Evidence Act is for Federal agency heads to “consult with . . . State and local governments.” Western Governors have been actively engaging with Federal agencies as they carry out the provisions of the Evidence Act and are intent on assuring that States are robustly engaged by agencies in the required development of agency learning agendas. Overseen by the head of each Federal agency, the purpose of the learning agendas, according to the Evidence Act, is “identifying and addressing policy questions relevant to the programs, policies, and regulations of the agency.”

According to a recent Government Accountability Office (GAO) report, (GAO–20–119, Evidence-Based Policymaking), however, “evidence-building activities are fragmented within . . . agencies and occur at multiple levels and entities within and across the agencies” and that “uncoordinated or poorly coordinated efforts can waste scarce funds and limit their effectiveness.” The report went on to say that “[e]ffectively-coordinated [evidence building] processes can help agencies ensure they are comprehensively and systematically looking across their organizations to leverage their existing evidence and focus limited resources on building new evidence . . . Such processes can help ensure agencies are well positioned to meet forthcoming Evidence Act requirements related to assessing and prioritizing evidence across the entire agency.” GAO reiterated the importance of active Federal agency engagement, as “through this engagement, agencies may find that external stakeholders (and States), have, or are aware of, existing evidence that helps the agency meet its needs or provide a fuller picture of performance . . . [and] ensure it is meeting the evidence needs of decision makers.”

Given the numerous Federal agency programs, policies, and regulations that directly affect the collective States, agency coordination with States and the integration of state data into those relevant Federal programs is paramount to their success. For these reasons, Western Governors encourage the subcommittee to direct Federal agencies to improve their internal processes required in the Evidence Act to coordinate with States on Federal data policies and procedures and incorporate state data into Federal decision-making processes. Western Governors also support full and consistent Federal funding to carry out the requirements of this critical legislation and ensure that agencies have the capacity and resources required to fulfill GAO’s evidence-based policymaking recommendations.

Finally, the Economic Development Administration (EDA) plays a critical role in rural economic development, particularly in light of recently allocated supplemental funding that has significantly expanded assistance available to communities. Western Governors encourage increased flexibility in the allowable uses of EDA funds so rural communities can prioritize investments that improve quality of life and amenities. Relatedly, outcome metrics based solely on the absolute number of jobs created do not reflect the important economic benefits of such investments. Nor do they account for the relative effect of job creation in communities with small populations or areas with high unemployment or poverty rates.

Western Governors recommend an increase in the proportion of economic development and infrastructure funding that goes toward capacity building. Strengthening local capacity by providing ample and consistent Federal funding for institutions, training, and technical assistance is essential to maximize the effect of State and Federal resources and to ensure that assistance reaches the communities that need it most.

Western Governors recognize the enormous challenge you have in balancing competing funding priorities, and we appreciate the difficulty of the decisions the subcommittee must make. These recommendations are offered in a spirit of cooperation and respect, and WGA is prepared to assist you as the subcommittee discharges its critical and challenging responsibilities.

[This statement was submitted by James D. Ogsbury, Executive Director]